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THE SUCCESSES AND FAILURES OF THE FIRST AND SECOND BANKS OF THE UNITED STATES[1]

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WRITING of the Second Bank of the United States, Professor Dewey says

> It is difficult to find in the experience of this institution any lessons of importance which may be of special service in the preparation of a plan for a large national central bank at a later period, when business methods have been transformed by the railroad, the telegraph, and by the development of corporate enterprise, to say nothing of the change in banking law through the general substitution of national supervision for state control.

The point is well taken. Conditions to-day are essentially different from those which existed in the period covered by the life of either of the United States banks. Nevertheless, their history has at least this value for the advocates of a central bank—it proves the superiority of a central bank over any other system of banking then existing in the United States, and in some respects over any other system ever existing in the United States.

I

In relating the successes and failures of the two banks, it must always be kept in mind that our knowledge of the operations of the first bank is exceedingly limited. This is due to the fact that almost all the reports of its operations have disappeared. Even Professor Holdsworth's account, although it tells us everything that is known about the first bank, does not permit us to

[1] Based on *The First and Second Banks of the United States*, by John Thom Holdsworth, Ph. D., and Davis R. Dewey, Ph. D. Washington, Government Printing Office, 1910. Publications of the National Monetary Commission, Senate doc. no. 571, 61st Cong., 2d session.

speak with any certainty about most of its operations. In the next place, it must be remembered that in the different circumstances of the country at the different periods of their existence, the history of the two banks is very unlike. The second bank was established principally for the purpose of facilitating a return to specie payments after the suspension of 1814. The first bank never had any such task. The efforts necessary to perform it brought down upon the second bank the deadly hostility of the state banks, which were always in friendly relations with the first bank. Moreover, the number of these local banks was much greater during the period in which the second bank existed than it was before that period. Again, the second bank carried on larger operations and over a much wider territory than did the first. This is shown by the fact that the first bank possessed only eight branches, all of them on the Atlantic seaboard, while the second bank had twenty-five branches, many of them in the interior. The character of the business of the two banks was also very different. The first bank loaned for the most part to merchants in the great seaports who had duty bonds to pay; the second bank loaned much more extensively to merchants in the interior. Again, the population and wealth of the country in the second period were vastly in excess of that existing in the first period. It follows that the career of the second bank was essentially different from that of the first.

Still, in many fundamental particulars the history of the two was similar. Above all, in the methods necessarily employed in regard to the currency problem of the country the two banks were at one. The fundamental currency problem in both cases was to secure a sound currency by guaranteeing the continuance of specie payments. To do this, it was necessary to diminish the immense volume of state bank issues, thus putting an end to their depreciation and inconvertibility. Each of the United States banks was what Bagehot considers the Bank of England to be, the centre of a "single banking reserve system." This was so not because they held the specie reserves of the state banks, but because those banks never troubled themselves to keep any adequate specie reserves. Instead, they trusted to the United States banks to protect them in case of unusual demands

for specie. Since this was the case, the banks of the United States were compelled in their own interest to see to it that specie payments were not suspended. The second bank had a further reason for such solicitude in the existence of a charter provision which compelled it to pay twelve per cent interest per annum on all its obligations which it refused to discharge in specie on demand.

Hence the national banks were bound to exercise some control over the business and especially the issues of the local banks. Both of them did exercise such control. The means employed by both banks were identical, consisting, as Gallatin says, " in receiving the notes of all those which are solvent, and requiring payment from time to time without suffering the balances due by any to become too large." To do this the banks of the United States had to be creditors of the state banks. This they were enabled to be, first, because they received the government revenues as the depositaries of the goverment, and second, because of their possession of branches. As depositaries of the government they received immense quantities of state bank paper. These were then presented to the state banks for payment. In case control was exercised by a branch, it was done by issuing the notes of the branch in the neighborhood of a state bank, and receiving state bank notes on deposit for these issues. The branch then presented the state bank notes to the issuing bank for redemption. In both cases, the state bank possessed no means of obtaining branch bank notes to anything like the amount necessary to act as a set-off to its own issues. The state banks were not receivers of the revenue, and they could not get possession of any considerable quantity of branch bank notes because these served as an excellent means of remittance for individuals who wished to forward funds to other parts of the country. Persons holding state bank notes were always willing to exchange them for paper of the bank of the United States, while nobody wished to exchange notes of the United States bank for state bank notes. Consequently, the branches always had the means of checking the state banks, and exercised it.

The means at the disposal of the big banks were efficient to

meet the end in view, but it must be noted that their employment forced both the big banks and the little ones to determine the volume of their discounts and loans, and the amount of their issues, by a consideration which had nothing to do with correct banking. The banks should have discounted with no other consideration in view than the need of the business community for banking facilities. This was not done, and in so far the entire banking system of the day was a mistaken one. This does not detract from the banks' success, however, in solving what after all was the most important problem in the currency situation so far as the people of the United States were concerned, namely, the possession of a sound and uniform currency. Moreover the policy of the banks secured a national currency in the place of a large number of local currencies. The existence of these numerous state bank currencies was one of the insuperable difficulties of the government and the people when no bank of the United States existed. State bank paper being payable only where issued, it follows that there was no medium common to the entire country except during the existence of one or the other of the big banks. Not only so, but the state bank issues were badly depreciated when distant from their places of issue. As a consequence, the government lost large sums of money in handling this paper. So did individuals, most of them having no means by which they could present the notes for redemption. The Banks of the United States furnished their own notes, which circulated from one end of the country to the other, and by their plan of checking state bank issues confined the latter to the neighborhood of their place of issue. The paper currency of the United States was sound and uniform under these conditions. The paper of the United States banks was an excellent currency. All their notes were receivable at Philadelphia, as well as at the issuing office; they were all receivable in payments to the United States; five-dollar notes were usually received by any branch, no matter where issued, and all notes were receivable on deposit. Meanwhile the state bank issues were restricted in quantity and kept within the localities where they were issued. Nor was this all. The paper was fairly elastic, being issued in answer to the demands of

borrowers who needed it to transact legitimate mercantile business, and ceasing to circulate when these transactions were completed. It can be asserted truthfully that the people of the United States at these periods possessed a paper currency which was decidedly superior to any other existing in the United States before the establishment of the present national banking system.

Another success of first importance on the part of the second bank was secured in the field of inland exchange. By its purchases of inland bills it furnished the farmers and merchants of the west and south with loans at a cheaper rate than could be supplied by the local banks. It could do this as a consequence of its branch system and its large capital. That these means made it possible to loan money cheaply in these sections would seem self-evident. Nevertheless, the fact of its furnishing cheaper accommodations in exchange, cheaper than the state banks in the west and south was denied at the time. But the experience of borrowers in those sections after the expiration of the charter of the second bank proved conclusively that they received better rates from the big bank. The Kentucky banks, for example, at once raised the rate of inland exchange to five per cent, though the rate of the Bank of the United States had usually been one per cent, and never over two and a half per cent. The Kentucky banks justified their action, when objection was made, on the ground that they could not make arrangements "with collecting banks in the south to furnish drafts at any definite rate or at any fixed time after collection." Moreover, the funds of the bank buying the bill had frequently to lie idle at the collecting bank because drafts upon the east could not be procured, and these were the only means of transfer of funds allowed by the collecting bank at New Orleans. Hence a loss of interest on the funds. Under the circumstances the Kentucky banks argued that five per cent was not too high a rate. They could not deny, of course, that this was a much heavier burden upon trade than before. Moreover, they admitted that the Bank of the United States had given better accommodations; but that, they said, was due to its national character.

This was the correct explanation. The Bank of the United States did not need to make arrangements with other banks to collect its bills or furnish other drafts, since all the transactions connected with its exchange operations took place through its own offices. Nor did its funds lie idle, for there was always use for them at some one or other of its offices, and if they were not needed where they happened at the moment to be, they were transferred without delay to places where they were needed. It is evident that in this respect the old bank of the United States was vastly superior to the state banks, or indeed to any system which does not include branches. It is equally evident that the purchase of inland bills at a low rate was of enormous benefit to merchants and farmers in the south and west, and a very important means in aiding the development of that country. "It is undoubtedly true," says Dewey, "that one of the chief services of the bank to the commercial world lay in its ability to furnish exchange at low and fairly uniform rates." It is quite as true that similar advantages would be afforded to-day by a central bank with branches.

The services of both banks of the United States as government agencies were never denied. Gallatin said over and over again that the first bank furnished a safe depositary for the government, that it transmitted the treasury funds from one part of the country to another "instantaneously," and that it greatly facilitated the collection of the revenue. It must be added that the first bank was not bound by its charter to transfer the treasury funds without recompense. In 1800 the government passed an act authorizing the bank to hold the public deposits, and after this the bank did transfer the funds without charge. The same arrangement existed in the case of the second bank and was provided for in its charter. It was bound to transfer the public funds within the states and to distribute them to the public creditors without making any charge for the service. It was also required by a later law to act as commissioner of loans and as pension agent for the United States.

The actual services of both banks were briefly as follows: 1. They received and kept the revenues of the government. 2. They transferred the government funds without charge within

the limits of the United States. 3. They disbursed the government's funds to the holders of government bonds when these were paid off. 4. They disbursed the pension fund. 5. They acted as commissioners of loans for the government. All this was done without expense to the government.

The government also enjoyed the advantage of having a safe depositary for its funds. These were placed in the offices of the bank by collectors of customs and taxes, by postmasters and by land-office agents. The bank then became immediately responsible to the secretary of the treasury for every cent thus deposited. Secretary Woodbury, a bitter enemy of the second bank, admitted that the government never lost a dollar through the agency of the Bank of the United States, whereas it is well known that it lost considerable sums both when these funds were deposited in the state banks and when it undertook to care for them itself, without mentioning the expenses necessary for taking care of them even when no loss was incurred. Certainly the banks of the United States furnished the safest and the cheapest depositaries of government funds that this country has ever known.

The greatest usefulness of the banks to the government consisted in the transfer of the public funds. The revenues of the government were deposited in the offices of the bank, and were then subject to the draft of the treasurer. He was bound, however, to give notice to the bank so that it might have time to make the transfers without embarrassment to itself. This was done by sending to the cashier a weekly list of drafts drawn by the government, and after June, 1829, a daily list of the government warrants issued, stating the sums which the government needed, the places at which it needed them, and the times of payment. The bank then met the needs of the treasury without inconvenience to itself or expense to the government. In this respect the banks of the United States were the cheapest and best agencies the government ever possessed. Without them it has always been compelled to pay for its transfers, whether these were carried out by itself or by state banks. Yet the bank frequently made money by the transfers. This was the result of its branch system, its extensive issues of notes

which were current from one end of the union to the other, and its system of inland exchanges. No state bank possessed any of these advantages, nor is it possible to secure them except through the medium of a great central bank with branches.

A further advantage of the handling of the funds by the banks is to be found in the effect upon the business community. Under the present system of keeping the government funds, large sums of specie are frequently locked up in the treasury instead of being at the service of the commercial interests. Again, in the payment of the public debts, large sums are frequently thrown upon the market at a time when they are not needed. During the existence of the banks of the United States these difficulties were not experienced. The bank held the government deposits, and employed them in the discount of business paper, thus keeping them in use by the community. Again, when payments had to be made on account of the public debt, the banks discounted long beforehand on the receipt of the bonds to be redeemed, which were deposited by merchants to secure their loans. Thus the payment of the debt was gradual.

From what has been said, it will be apparent that the successes of the banks of the United States depended first of all upon the system of branch banks connected with the parent office at Philadelphia. It was through the possession of these that they were able to create a sound and uniform paper currency, to restrict the over-issues of state banks, to furnish an elastic currency, which was issued only at the demand of merchants on the security of business paper, and which was retired when the transactions upon which it was based ceased. It was through their branches that they were able to establish a system of exchange which furnished cheap loans to the south and west. It was thus that they were able to meet any legitimate demand for loans in any part of the United States where they had branches. For the branches kept the bank management informed as to the localities where money was needed, and a transfer of funds could take place to those localities at once. This is an advantage which no bank without branches can possibly have. Not only so, but the loans so furnished

were at a lower rate than was possible under any other system. This is another great benefit of a bank with branches. It tends to equalize the rate of exchange in differents parts of the country.

II

We may now consider the failures of the banks, failures which in some cases were due not so much to the banks as to the conditions of the day. The first and most serious of these was the failure of these banks of the United States to secure an arrangement with the local banks by which the two systems might act in unison in the face of a threatened panic. This criticism will apply more specifically to the second bank, for the first bank of the United States did have agreements at times with the great state banks. This was due to the small number of the state banks at the time, and the excellence of their management. When the second bank was in existence, the state banks were much more numerous and scattered, while their management was by no means impeccable. Moreover, the hatred of the state banks for the second bank would have made any agreement impossible. In any case, no such agreement existed. No concerted action was possible. The result was that there were constant flurries in the money market, and in time of panic, the banks generally refused accommodations, thus intensifying the panic instead of checking it. A difficulty of this sort probably would not arise to-day, and certainly not if there existed a large central bank with the duty imposed upon it of safeguarding the financial interests of the country.

Another failure sprang out of the banks' efforts to check the issues of the state banks. As a consequence of this effort, the banks were compelled to trade in the same localities as the state banks. This is particularly true of the second bank, which did a very large business in the south and west. But it was extremely difficult to do legitimate banking in these sections, because the need in them was not for banking facilities, but for capital, for long loans on the security of real estate. The bank was not able to avoid these difficulties. Much of its capital in the latter years of its existence was tied up in accommodation

paper at long dates in these distant offices. This was bad banking. In case of a panic, the bank would have found itself in a very dangerous situation indeed.

Another failure in the case of both banks was their inability to make their note issues strictly convertible. The first bank never made any effort, except for a brief period, to pay all its notes at any and all its offices. Consequently, they were slightly depreciated when at any great distance from the branch which issued them. The case of the second bank was similar, though that bank for most of its existence did redeem its five-dollar notes at all its branches, no matter where issued. The depreciation was always small, and frequently did not affect the mass of the people, since the smallest denomination of the bank's paper was receivable at par wherever there was an office of the bank, and all the notes were receivable at par in payments to the government.

The failure which most affected the interests of the second bank was the failure to control its offices. Whether such a difficulty existed in the case of the first bank it is impossible to say. The managers of the second bank, however, frequently found it impossible to control the branches in the policy followed in regard to loans and issues. The difficulties in the way of adequate control were probably insuperable at that time. The central office could not determine minutely the policy which was to be pursued by the branches. That had to be left to the local directors, who alone were sufficiently acquainted with the business men and the business needs of their localities. Moreover, the lack of railroads and telegraph lines made it impossible for the central board to act with the necessary promptness in sending instructions. Consequently, only a general line of policy could be indicated to the branches, and then their managers had to be left to carry it out in their own way. Often this way was directly opposed to the instructions sent. Occasionally the local directorates set the parent board at defiance, and carried out their own policy in direct violation of specific orders. This was true even when the offices were subject to the most stringent supervision, which was exercised only in the last half of the bank's existence. Thus at Hartford, in 1826, the branch

management disobeyed orders, and lost a large sum of money as a consequence. There were similar cases of disobedience at Pittsburg, Portland, Portsmouth, Nashville, New Orleans, Lexington, Louisville, and even at an office so close to the central office as the New York branch. The consequence was a large amount of bad banking, especially at the western and southern offices.

The cause of the failure to control the offices lay almost entirely in the circumstances of the day. The difficulties of communication, as already pointed out, made it impossible to exercise sufficient control. But above all, it was impossible to secure intelligent men for the local directorates, who knew anything of legitimate banking methods. This was the great difficulty. To-day none of these causes of failure exist. Even at that time, provided the branches had been in closer proximity to the central office, it is altogether likely that adequate control would have been exercised. The experience of the Indiana Bank, founded in 1834, shows that such control was possible.

The value of a great central bank possessing branches would be much greater now than in the earlier history of our country. To the government it would furnish a convenience not otherwise obtainable in safeguarding and transferring the public funds. It would undoubtedly be able to furnish banking facilities in small communities where to-day this is scarcely possible and thus would tend to equalize the rate of interest throughout the United States. Such a bank as the holder of the single specie reserve of the country would make panics like that of 1907 impossible; it might issue notes on the basis of assets, and thus furnish an elastic currency which would avoid all the drawbacks of present national bank issues. In a word, a great central bank with branches is probably the only institution which will meet the present banking needs of the United States.

LESSONS OF STATE BANKING BEFORE THE CIVIL WAR[1]

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IN recent discussions of currency and banking reform, too much attention seems to have been given to foreign systems and practise, too little to our own past experience. Our century and a quarter of banking history affords as many valuable lessons of success and failure as the same period of other countries, and in some respects these lessons are more reliable guides because they are based upon our own peculiar conditions and needs. In the United States, we have experimented with every type and variety of currency and banking and our present dual system of national and state banks is but the evolution of earlier types. The fiscal exigencies of the Civil War checked the process of evolution, and fastened upon the country the incubus of a cumbersome and unscientific banking system. But for this check it is highly probable that some such organization as the free banking system of New York, the model upon which the national banking system was largely built, with such modifications as experience should dictate, would have spread throughout the entire country.

The studies of *State Banking before the Civil War* and *The Safety Fund Banking System in New York 1829–1866*, prepared for the National Monetary Commission by Dr. Davis R. Dewey and Dr. Robert E. Chaddock, trace our most important banking experiments before the establishment of the national banking system. It is the purpose of this paper to review some of these experiments, and to deduce from them some lessons

[1] Based on *State Banking before the Civil War*, by Davis R. Dewey, and *The Safety Fund System in New York*, by Robert E. Chaddock. Washington, Government Printing Office, 1910. Publications of the National Monetary Commission. (Senate doc. no. 581, 61st Cong., 2d sess.)

which appear to be pertinent to present-day discussions of banking and currency reform.

The history of state banking before the civil war is largely a history of various plans for issuing notes. Deposit currency, which plays so large a rôle in modern business, constituted only a small proportion of the circulating medium of the country until nearly the close of this period. Bank "bills" formed the bulk of the currency and, in numerous instances, particularly in the "wild-cat" period, banks were established for the sole purpose of issuing notes, with little or no thought of redeeming them in coin. As Knox aptly remarks in his *History of Banking*:

> The creation of wealth by means of bank notes was the great heresy of the period between the years 1811 and 1861, as the creation of wealth by government issues and fiat has been the chief financial heresy since that date. . . . The idea that credit money, instead of being an instrument of wealth was in very truth wealth itself, had taken a strong hold on the minds of the public, and legislators could not get over the notion that by chartering banks with capital created by the state, or permitting individuals to start banks on capital which was only capital by courtesy, they were increasing the wealth of the public by the exact amount of the bank notes issued.

Prior to the establishment of the First Bank of the United States in 1791, there were but three banks in the country, the Bank of North America in Philadelphia, the Bank of New York in New York, and the Bank of Massachusetts in Boston. The Bank of North America was chartered by Congress in 1781 to give financial support to the Revolution. The government subscribed $250,000 of the $400,000 capital, but extreme financial need compelled it to sell its holdings in 1783. Though planned by Morris primarily to aid in financing the Revolution, it did a considerable business in the discount of commercial paper. It issued notes which were redeemable in specie on demand, and which provided an ample circulating medium.

The Bank of New York and the Bank of Massachusetts were established in 1784, the latter under charter from the state. The Bank of New York was started as a private bank and did

not receive a charter until 1791. Upon the establishment of the First Bank of the United States under government auspices, several other banks arose intended to be to the respective states chartering them what the First Bank was to the federal government. The privilege of banking was originally regarded as a monopoly under exclusive rights granted by the government. Both federal and state governments granted bank charters; but while the federal government licensed only one at a time, the states extended the privilege to many institutions, each under an individual charter adapted to local conditions. There was no principle of cohesion in the system, and no uniformity in administration and control.

The attempts which were gradually made to regulate banking reflect the state of public opinion at different times and in the different states. One of the most important regulations was concerned with the issue of notes. In 1792 a law was passed in Massachusetts providing that a bank's outstanding notes and loans should not exceed twice its paid-in capital. The charter of the Bank of New York limited its debts, over and above the money on deposit, to three times the paid-in capital. This restriction was intended to guard against undue expansion of both debts and credits. Later the law was changed to provide that neither debts (except for deposits) nor credits should exceed twice the capital. The same distinction between deposits and notes was recognized in the charter of the First Bank of the United States, which provided that the debts of the bank, except its deposits, should not exceed the capital.

In this day of indiscriminate blending of commercial and financial banking, stress may properly be laid upon the restriction in the charter of the Bank of Massachusetts, which prohibited it from dealing in bank stocks. The lessons of the panic of 1907, however, are too recent to necessitate particular emphasis upon the possible dangers of pyramiding banks. The Bank of New York was prohibited from holding real estate except for its own accommodation or in settlement for debts previously contracted. This restriction has generally been regarded as wise and sound and has obtained in all epochs of our banking history, including the period of our present national banking system.

One other restriction in the charter of the Bank of New York is worthy of notice, namely, the clause prohibiting it from trading in the stocks of the United States or any state. Because of the facility with which government, state and municipal bonds can be turned into cash, these forms of investment for a part of a bank's funds are very properly regarded as highly valuable, and in general they are as safe as they are serviceable. But this restriction upon the Bank of New York, repeated in a measure in the charter of the First Bank of the United States, is important as marking the earliest attempt to separate government and banking. Unfortunately, the point of this lesson was lost upon the framers of subsequent banking and financial legislation, and though at times, particularly with the establishment of the subtreasury system in 1840, efforts were made to divorce government from banking, this highly desirable result has never been consummated.

The First Bank of the United States was established in 1791 as a part of Hamilton's scheme to strengthen the new federal government. While Hamilton appreciated the services of a powerful national bank to the commercial interests of the country, and to the community at large as a regulator of the currency, he regarded it primarily as "an indispensable engine in the administration of the finances." The bank was eminently successful in the discharge of both these functions, and abundantly justified the predictions of its founder. As to its issues, the charter provided that the bank should not become indebted, except for deposits, to an amount greater than its capital stock. This meant substantially that it might issue notes up to the amount of its capital. At no time, however, did the total volume of notes outstanding exceed $6,000,000 against a capital of $10,000,000, and they were always immediately redeemable in specie. The fact that they were receivable in payment of public dues so long as they were kept payable in coin, gave them a far more extensive circulation than those of any other bank. Moreover, as the fiscal agent of the government, the bank in collecting importers' bonds refused to accept the notes of banks which did not redeem them promptly in specie. By adhering to the rule of presenting for redemption

the notes of other banks, it brought the bank currency of the entire country up to a high standard, albeit it incurred the enmity of many banks in so doing.

Opposition to the recharter of the bank in 1811 was largely political. The government had gone into the hands of a party opposed to that of the bank's organizers. It was denounced as unconstitutional and undemocratic. Gallatin's defense of the institution brought upon it the enmity of his political foes, and in the last stages of the struggle for recharter, some of the state banks, which had been kept by the influence of the big bank in the straight and narrow path of banking rectitude, combined against it.

The year following the dissolution of the First Bank of the United States, the government was plunged into the war of 1812 leaning upon the state banks. The government funds were deposited in these banks, which had sprung up in large numbers all over the country. With the removal of the steadying influence of the Bank of the United States and the check upon redemption of their notes, an enormous expansion of issues had followed. By 1814, all the banks south of New England had suspended specie payments. The government defaulted on the interest of the public debt, and treasury operations were paralyzed. Bank notes circulated only at a discount, varying in value with the character of the bank issuing them. The entire country was in financial chaos.

In this extremity, attention was directed to the establishment of a national bank for the purpose of restoring order in the currency, and of bringing about the resumption of specie payments. Accordingly in 1816 the Second Bank of the United States was established, modeled closely upon the First Bank. The government subscribed one-fifth of the $35,000,000 capital, payable in notes, and appointed five of the twenty-five directors. The bank was to be the depository of public funds, unless the secretary of the treasury should otherwise direct. Notes were to be issued in no smaller denominations than $5, and they were receivable for all debts to the government. All obligations, deposits as well as notes, were redeemable in specie under a penalty of twelve per cent for failure to do so.

The regulation requiring the deposits to be paid in specie was a notable step toward sound banking. There was a universal idea that while notes should be redeemable in specie on demand, deposits might be paid in the notes of other specie-paying banks. The consequence was that two kinds of currency circulated everywhere: (1) the notes of the local banks which were at par with specie; (2) the notes of other banks which were at a discount, greater or less according to the expense of redeeming them. The new regulation, though it did not entirely prevent the circulation of the poorer grade of notes, abolished it so far as the Bank of the United States was concerned, and set a standard of good banking which "reached its fulfillment in the Suffolk bank system a few years later."

After the first few years of mismanagement, the Second Bank of the United States attained a position of soundness and prosperity. It accomplished the purpose for which it was created, bringing about the resumption of specie payments and establishing a sound currency for the whole country. It gained an enviable reputation for sound banking and business probity both at home and abroad. The story of the wreck of this proud and prosperous institution through political strife is too well known to need recounting here.

Despite the vast changes that have come in the organization of business and in the general supervision of banking it seems to the writer that some of the lessons taught by the experiments of these early banks are entirely pertinent to present-day discussions of reform. The problem has changed, perhaps, but the principle endures.

In the first place, then, it may be recalled that though both the First and Second Banks of the United States were sound, conservative institutions, instrumental in securing to the country a safe and uniform currency, and in raising the standard of banking to a high level, yet they became involved in political entanglements which accomplished their downfall. Moreover, the very success and magnitude of their operations, coupled with their fiscal relations to the government, excited the envy and opposition of state banks, and aroused in the public mind the fear of monopoly subversive of the public interest. Op-

ponents of the central bank idea insist that similar opposition and distrust would attend any central bank plan that might be proposed today. Just as the Second Bank of the United States in its effort to establish a sound currency in 1817 clashed with local and selfish interests, so, it is argued, a central bank as an agent for the readjustment of present banking conditions would inevitably clash with the existing 25,000 state and national institutions.

On the other hand, it is believed that the task of a central bank today in securing elasticity of bank notes, mobility of reserve, and cohesion in the entire banking system would impose upon it no heavier burden than was laid upon the Second Bank of the United States in 1817. Past experience teaches, too, that a powerful centralized institution with branches in different parts of the country, greatly simplifies the vexed problem of domestic exchange. The history of the two banks of the United States contrasted with that of the sub-treasury system, which has ever proved a disturbing factor in the banking situation, demonstrates the necessity of divorcing fiscal and business activities. Above all, the history of this period teaches the plain lesson that only through some centralized, dominant control can unity, cohesion and solidarity in banking be secured.

The period following the downfall of the Second Bank of the United States and preceding the establishment of the national banking system is marked by three notable experiments—the Suffolk bank system, the safety fund system, and the free banking system. The origin of some of these movements reaches back into the period of the Second Bank, but their full development comes later. The removal of the check upon state bank issues occasioned by the passing of the national bank, and the hope of obtaining deposits of public funds led to a large increase in the number of banks and an enormous inflation of both notes and discounts. As early as 1813 the banks of New England, in the absence of legislative restriction, undertook to regulate note issues, after the manner of both banks of the United States, by compulsory redemption. The notes of country banks, which comprised a large proportion of the currency even in the cities, circulated at a discount ranging from one to

five per cent. The New England Bank of Boston, established in 1813, started the movement for better conditions by agreeing to receive the notes of country banks and send them home for redemption, charging only the actual cost. Dewey records that this policy brought discounts down to from one-fourth to three-fourths of one per cent, and reduced the circulation of outside banks.

In 1819, however, the Suffolk Bank of Boston adopted a plan of redemption designed to abolish the discount entirely and at the same time to yield the bank a profit. It offered to redeem the notes of any country bank at par on condition that the issuing bank should keep a permanent deposit of $2,000 or upward, according to its capital, in the Suffolk, the use of which would compensate it for doing the business, and a further deposit sufficient to cover the cost of redemption. Violent opposition to the plan arose at first on the part of the country banks, which anticipated a curtailment of their circulation and profits. Aided by six other banks, however, the Suffolk was able to force them into the system by collecting and returning large amounts of their notes and demanding redemption in specie over their counters. The Suffolk became a clearing house for the notes of New England banks, balancing them against each other day by day. As a result, redemptions were frequent, the average life of the bank note being about five weeks. New England currency was kept at par with specie, and the volume of circulation was automatically adjusted to business needs. The Suffolk system was strengthened by a law passed by the legislature of Massachusetts in 1845, providing that no bank should pay out any notes except its own. The Suffolk Bank system, together with a rival, the Bank of Mutual Redemption, continued to dominate the banking of New England until the adoption of the national banking system, which required every bank to receive the notes of every other bank at par.

Among the reasons for the successful working of the Suffolk system, Dr. Dewey notes the rigid system of examination and supervision of banks which was general in New England, and the fact that by permitting correspondent banks to overdraw the Suffolk kept them constantly in its power. He doubts

whether the system could have been successfully extended over the whole United States, limited as it was at that time. On the other hand, Horace White says:

> Its success assures us that a credit currency is entirely feasible, even in a country where independent banks of small capital abound. The prime condition of such a system is frequent redemption of notes at commercial centers, and the restriction of the circulation, as much as possible, to the neighborhood of the issuing bank.[1]

The fact that before the adoption of the national banking system, there were four distinct systems of note issue side by side is sufficient to account for the chaotic condition of the currency and the demand for uniformity. In the experiments and banking systems thus far reviewed, note issues were based upon general assets. In the other systems, issues were protected by a safety fund, or were based upon public securities, or upon the faith and credit of the state.

The safety fund system established in New York state in 1829 was a system of mutual insurance. Each bank was required to contribute annually to a special fund one-half of one per cent of its capital until the payments should amount to three per cent. This fund was to be used to pay all the debts of failed banks except capital stock. Dr. Chaddock, in his study of the safety fund banking system, notes that the makers of the law did not realize the significance of the guaranty until the numerous bank failures of 1840–1842 caused the system to break down under the burden, and quotes the report of the bank commissioners of 1841 to show that the law of 1829 was primarily designed to secure note holders only.[2] Realizing the mistake, the law was amended in 1843 so as to make the fund applicable only to the payment of the notes of failed banks. This amendment in the law came too late. In 1838, the bond-deposit system was established and new banks after that date incorporated under the new plan. Furthermore, a law of 1846 prohibited the granting or extension of any special bank charters, and as all the safety-fund banks operated under such

[1] *Money and Banking*, p. 435. [2] p. 272.

charters, the maintenance of the safety fund fell upon a constantly decreasing number of banks. Dr. Chaddock notes the significant fact that the legislature in changing the law in 1842 did not discuss the question of guaranty of deposits. He says: "The deposit business had not developed to the point where losses to depositors from failure of banks outweighed or even approached the losses to the public through bank notes of insolvent institutions."

A report made to the New York senate in 1849 refers to note holders as "involuntary creditors" of a bank, while depositors are voluntary creditors and therefore not in need of the same security against loss as the note holders. After about 1850, however, deposits increased much more rapidly than either capital or circulation and the panic of 1857 made clear the necessity of protecting depositors. The result was the adoption of a specie reserve against deposits, a feature carried over into the national banking system.

The fundamental defect of the system was the failure to limit the use of the fund at the start to the payment of notes, and to base the contributions on circulation instead of capital. It is estimated that a tax of one-fourth of one per cent on circulation would have covered all failures and made the notes of all banks in the system secure.

Though the evolution of the safety-fund idea was checked in New York, first by the introduction of a new system resulting from political conditions, and later by the establishment of the national banking system, it has stood successfully the test of long experience in Canada. Under the Canadian system, bank notes are a first lien on the assets, and are further protected by the double liability of stockholders. The final resort, in case of failure, is the "circulation redemption fund," a sum of gold or Dominion notes equal to 5 per cent of the average circulation which each bank is required to keep on deposit with the minister of finance. Professor J. F. Johnson notes, however, in his admirable study of *The Canadian Banking System*,[1] that the

[1] Joseph French Johnson, *The Canadian Banking System*. Washington, Government Printing Office, 1910. Publications of the National Monetary Commission. (Senate doc. no. 583, 61st Cong., 2d sess.)

success of the system depends primarily upon the plan of redemption. Every bank is required to redeem its notes at its head office and in seven other leading commercial centers. The bank note, says Professor Johnson,

is almost the sole circulating medium of Canada, and the people have confidence in it because it is tested every day at the clearing houses and proves itself as good as gold. This daily test would probably not take place with the same regularity as now if the banks did not have branches or if they were obliged to deposit security against their issue.[1]

Note issues are based on general assets, and respond automatically to the fluctuations of the business demand.

In all recent proposals for thorough-going currency reform, the idea of a fund to guarantee the notes of failed banks appears. The Indianapolis plan of 1898 proposed that bank notes be divorced from bonds, and be protected by a guaranty fund in gold coin equal to five per cent of the total issue, and maintained by a graduated tax on circulation. The New York Chamber of Commerce scheme, the Baltimore plan, and the Fowler plan, all provided for a guaranty fund, but the Fowler bill of 1908 contemplated the guarantee of deposits as well as notes. The clear lesson taught by the experience of New York and Canada has apparently been disregarded in some of the western states where recent legislation has provided for the guarantee of deposits.

Prior to 1838, bank charters in New York were granted by special act of the legislature, and in many cases were given as patronage to political favorites. As a result of the scandal growing out of this practice, a strong sentiment developed in favor of a "free banking" law which was enacted in that year. This law provided that any person or association might issue circulating notes to be used as money by depositing with the comptroller of the state bonds of the United States, of the state of New York or other approved states, or mortgage bonds on real estate worth double the amount of the mortgage. In case of a bank failure, these securities were to be sold to redeem its

[1] p. 23.

notes. No provision was made for redemption in specie, and the state did not guarantee the notes.

Individuals as well as associations promptly took advantage of the plan. Within a year, 133 new banks were organized, many of them for the sole purpose of issuing notes. They simply converted securities deposited with the state officials into circulating notes, and in many cases made no pretense of doing a discount and deposit business. After some failures in which the securities were not sufficient to meet the notes, the law was amended so as to exclude all securities except the bonds of the United States and New York. Other faults were remedied as experience showed the weakness of the system. Under the amendment of 1840, country banks were compelled to redeem their notes in New York and Albany at a discount not exceeding one per cent (afterwards made one-fourth of one per cent). Later, no one was allowed to transact a banking business except at his place of business, and all banks were compelled to be banks of discount and deposit if they wished to continue the note-issuing function.

These changes gradually strengthened the system, until in the matter of security there was little to be desired. But it was inelastic and unresponsive to the needs of the business community. Banks could issue notes only in proportion to the bonds deposited, which bore no relation whatever to current business demands. Despite the defects of the plan, it became the model of the national bank system in 1863.

The free banking system appealed to popular sentiment and was tried in some form in sixteen states. The system of issuing notes against securities was adopted in several western states in the 50's, generally without the restrictions which the experience of New York had shown to be necessary to protect the note holder. This inherent defect, increased by bad management and lack of proper regulation, led to failure and disaster.

The State Bank of Ohio, established in 1845, combined the safety-fund and bond-deposit principles, and stands out in a period of reckless banking as an institution "always solvent and successful." It had thirty-six branches, each liable for the note issues of all the others. Note issues were restricted in amount

to twice the capital, and were safeguarded by a fund, consisting of money or bonds of the state or of the United States, deposited with a central board of control.

In 1842, Louisiana, after a disastrous experiment with a state-owned bank, established a sound banking law under which the liabilities of all banks were covered one-third in specie, the other two-thirds by commercial paper limited to ninety days. There was no other limit to the amount of circulation, but prompt redemption was secured by the requirement that a bank should pay out no notes but its own, and the balances between banks should be settled weekly in specie. The banks of Louisiana went through the panic of 1857 without suspension, and continued in prosperous operation until the civil war.

The experiences of banks owned and managed by the states in whole or in part were in the main disastrous. Mississippi, Arkansas, Florida, Georgia, the Carolinas and others tried state ownership and management with but poor results. Politics, dishonesty and unsound methods brought most of them to ruin.

The State Bank of Indiana, incorporated in 1834, stands out as the most striking exception to the rule of failure among state-owned banks. It was modeled largely upon the Bank of the United States, having a monopoly of banking in the state, and a system of ten branches. The state subscribed one-half of the $1,600,000 capital, all of which was paid in specie. Each branch was apportioned one-tenth of the capital, and was allowed to issue notes on its liquid assets up to twice its capital. Each branch, also, was required to accept at par the notes of the other branches, and to redeem its own notes in specie. The general management was in the hands of a president and a board of directors, four chosen by the legislature, and one by the private stockholders of each of the several branches, but each branch practically managed its own affairs. Thanks to good management, sound methods, and thorough examinations, the bank was very successful, and maintained specie payments through the crisis of 1857.

Keeping in mind the fact that state banking during the period under review was concerned primarily with the regulation of note issues, the deduction seems indisputable that systems based

upon the deposit of public securities or upon the faith and credit of the states, failed, while those based upon the banking principle succeeded. It remains true, of course, that irrespective of systems, laws, or regulations, success or failure in individual cases depended upon conservative management and a real need for the bank. Nevertheless, the experiences of the period, particularly of the New England banks and the Bank of Indiana, vindicate the principle of banking on general assets, and impeach the basic principle of the present national bank system.

On the other hand, though some of the systems secured for certain sections of the country a fairly uniform and secure currency, yet considered in the aggregate for the entire country, these systems lacked the quality of uniformity. Both banks of the United States secured for the whole country a uniform currency. The Suffolk bank accomplished a like benefit for New England; yet even there the depreciated currency which drifted in from other sections was always a source of annoyance. The national banking system gave to the entire country a currency at once safe and uniform, a blessing which it had not enjoyed since the days of the First and Second Banks of the United States. Unfortunately, however, this blessing was secured at the expense of the equally important quality of elasticity. These experiences seem to indicate that the happy combination of safety, uniformity and elasticity of bank notes can best be attained by resting them upon the general assets of the bank, secured by a first lien upon assets and the liability of stockholders, and with a guarantee fund for the redemption of the notes of failed institutions, and responsibility of each bank for the redemption of its own notes.

Since the establishment of the national banking system, which secured a uniform national currency, the question of note issues has decreased in importance owing to the fact that banking has tended to the lending of credit in the form of deposit accounts rather than in the form of notes. The regulation of reserves has, therefore, supplanted the regulation of note issues as the crux of banking reform. Here the experiences of early state banking offer little help. As already noted, the panic of 1857 directed attention to the rapid development of deposit currency,

and New York was among the first to enact legislation requiring banks to carry a fixed reserve against deposits. This principle was incorporated in the national banking system, and has been adopted in some form in the banking regulations of most of the states, with the result that our banking reserves are immobile and unresponsive to business needs. This immobility of bank reserves is generally conceded to be one of the weakest points in our present system. The trouble lies, not in the proportion of the reserves, but rather in their rigidity, which in practice prevents them from fulfilling the true function of reserve in time of need. As Dr. A. Piatt Andrew, Assistant Secretary of the Treasury, has recently said:

> No matter what the exigency, no matter how insistently a precarious situation in the financial world demands a liberal extension of accommodation on the part of the banks, our institutions, unlike those of any other banking system in the world, are prevented from responding to these demands by this uncompromising restriction of deposits to an untrespassable maximum proportioned to the cash reserves.[1]

Still another defect incident to our miscellaneous system of banking is the lack of solidarity or centralization. This desideratum was secured in some degree in earlier days through the influence of a single powerful bank like the First and Second Bank of the United States or as in New England through the Suffolk system. Under the present system, some measure of cohesion is secured by the influence of the comptroller of the currency, by voluntary associations, like the clearing houses, and, more recently, by emergency currency associations; but at best, these expedients are local, often antagonistic, and never broad enough to cover all conditions and sections. Whether the required unity and cohesion can be secured best through the medium of a central bank or through some other plan of banking, centralization is the main problem before the National Monetary Commission.

[1] *Annals of the American Academy*, November, 1910, p. 8.

THE BUSINESS MAN'S VIEW OF CURRENCY REFORM[1]

IRVING T. BUSH

Chairman of the Currency Committee of The Merchants' Association of New York

AS Chairman of the Currency Committee of The Merchants' Association of New York, I am invited to discuss the question of currency reform from the point of view of a business man. I shall waste no time in pointing out the defects of bond-secured bank notes or the need for an elastic currency. On these points all competent students are in agreement. They are agreed as to the evils of the present system and the principles upon which reform should be based. There are but two things which it is necessary to consider: the method of applying the reform principles upon which all agree, and that of creating among the general public a knowledge both of the principles and of their proposed application.

The methods of currency reform that are worthy of serious discussion divide themselves into two classes: Those providing a central control, and those permitting the banks of the country to issue bank notes under certain rules up to an established limit, without central control. While the committee for whom I speak recognize the force of the arguments which have been advanced against central control, our conclusion is that it is the best method to adopt. In speaking recently upon this subject, I stated that we had eliminated as unimportant all objections to central control except four. These are as follows:

First, a fear on the part of many that the control of our currency will pass into the hands of politicians.

Second, the danger of control by special interests.

Third, the fear of exclusive control by the banks of the country.

[1] A paper presented at the meeting of the Academy of Political Science, November 11, 1910.

Fourth, the feeling on the part of some bankers that any currency control which takes the form of a central bank will prove to be a competitor in their business.

These four objections I believe exist, and must be recognized. I am sure, however, that the final analysis will show that only one of them is really to be feared; that is, control by special interests. If the general public can be satisfied that any system of control adopted can be administered for the good of the country and that all selfish interest can be absolutely eliminated, the objections to a central bank will end.

The proposition for which we stand is to design a method of selecting a board of governors of a central bank of certain limited functions, so that selfish interest can never dominate its administration. The opponent of this proposition usually dismisses the whole matter with the sweeping statement that this cannot be accomplished. We do not believe this to be true. Other nations have succeeded in controlling their currency through the medium of a central bank without finding this danger insurmountable, and we believe that if the object to be attained is recognized at the outset, and every safeguard provided, the people of this country are quite as capable of creating a currency control free from the influence of selfish interests as are our commercial competitors abroad.

Modern government and world progress rest upon the exercise of human judgment. If we admit that it is impossible to select administrative agents to whom under established restrictions we may delegate certain powers, government by the people must fail. We have seen many instances of the misuse of powers so delegated, but this has been the case only where the powers granted have been dangerously general in character, or where the people have been so busy with their everyday vocations that they neglected proper supervision of the officials selected.

Public sentiment when aroused is nearly always correct. In its resentment it frequently goes to extremes, but at the base of all great movements of the general mind of the country is to be found a desire for justice. In deciding whether we shall establish well-defined restrictions for the control of our currency and

then delegate its administration to a central board, or whether we shall attempt to create for all time a method which can be successfully operated without such control, we must recognize the dangers of both plans.

We have seen many cases where the power of control was selfishly used, but we have also had frequent experience of the danger of banking methods that lack such control. If in recent years there had been a central board supervising our banking and currency, equal in dignity and importance to the Supreme Court of the United States, a number of gentlemen who are now living at public expense might be successfully conducting their banks. This danger is quite as real as the danger of misuse of the powers which we delegate. It is true that the comptroller of the currency has the theoretical power to prevent unsound banking, but it is most difficult for him to detect improper methods in time.

If, however, the method of note issue were through a rediscounting of commercial paper by a central bank, a direct check upon unsound operations would be created, which could not fail of successful operation. The moment a bank improperly operated was refused the privilege of rediscount its position and usefulness in its community would be ended. In determining, therefore, the relative dangers of a controlled or an uncontrolled currency system, the importance of these considerations must be weighed.

The natural optimism of the people of the United States, perhaps our greatest asset, is another reason why we should delegate to some of our best minds power to check expansion, when it has gone far enough. If we create an automatic system which will permit each bank to issue currency up to say one hundred per cent of its capital stock, there are many who will consider this as a recognized part of their assets, and will expand their operations as recklessly to this limit as to those which are at present provided, and we shall find that no safety check has been created.

We are against an uncontrolled system also for the reason that such methods are as yet untried by any great nation. The only example of any importance of such a system is that of

Canada to-day. Canada has a population of about seven million. Its problems of international finance are nothing as compared with those of this country, and in times of financial stress it has both England and the United States to fall back upon.

We object to an uncontrolled system again, because it provides no medium for the protection of our gold reserve through dealings in gold and foreign exchange. The power to safeguard this point is absolutely essential, and it requires, in an emergency, the exercise of our best banking and business judgment.

We are against an uncontrolled system because we recognize that if rules to govern our financial operations had been adopted fifty years ago, based upon conditions as they then existed, they would be outgrown and hopelessly inadequate to-day, and we do not believe that it is possible for the present generation to provide regulations which will meet the unknown developments of the future.

Most systems of currency issue which do not provide for central control are based upon what is known as asset currency. These schemes vary in detail, but the general plan is to issue currency against the assets of the bank. As business men we are against asset currency because we believe it is a first cousin to bond-secured currency which makes it mandatory that bank notes be issued against an investment in fixed securities. Asset currency makes it permissive that this be done. We believe that the funds of the depositor, which are a demand obligation, should not be invested in fixed securities, but should be held as nearly liquid as possible, to meet the requirements of trade. The banking experience of the world has shown that this object is best attained by the investment of these funds in short-term commercial paper, which can be readily liquidated within a limited number of days. Asset currency in its usual form makes it possible for a bank to invest its assets in bonds or underwritings, and to issue bank notes against them.

We also believe that it is impossible to create an uncontrolled system which will permit the centralization and proper administration of our reserves. This is a most important point. If our reserve is scattered among 20,000 banks, it may be as great

in the aggregate, but it cannot be so effective in preserving public confidence, as if centralized in one great reservoir where we all may see and measure its immensity. It is, of course, quite possible to design an uncontrolled system, which will state that the reserves must be held in one central reservoir, but the moment you attempt to administer this reserve properly the power of control must be delegated to someone. I have listened to addresses in which an apparently automatic system was carefully worked out, until the point of administering the reserves was reached. Then the author, who has usually devoted the first half of his speech to denouncing methods of central control, has calmly turned over to certain government officials, or others, the administration of this enormous mass of money, upon which our whole currency and banking system finally rests. This brings me to the point that nearly every recent plan for the reform of our currency either openly provides some board of central control, as in the general clearing-house plan or else covertly recognizes its necessity by delegating to someone the power to administer reserves. If this is so, are we not really quarreling over the selection of a name?

There are to be found in various parts of the country many who believe that we cannot delegate power to a central bank, but are quite certain that the general clearing-house proposition is sound. Where is the real difference? The country is so large that any system must be operated through the medium of branches. Each calls for a board of central control which is as much subject to the danger of selfish interest in one case as the other, and the function of note issue is practically identical. In time of need, the banker takes a portion of his acceptable assets to the nearest operating branch, and receives in exchange an agreed percentage of their value in bank notes and certificates. There may be some trifling difference in detail, but the principle is identical.

The general clearing-house plan does not provide the necessary power and machinery to deal in gold and foreign exchange. Otherwise it is a central bank, except in name. The name we consider important only in its international relation. We have a reputation abroad for trying various kinds of freak

currency. Other things being equal, we believe that it is desirable to adopt the same general methods that are used and understood by other great nations. By doing this we are the gainers.

The central bank which we propose has nothing in common with the two central banks which formerly existed in this country, and is a very limited and restricted form of the central bank employed by other nations. We have now 20,000 banks which are in intimate daily touch with every merchant in each small community. We should do nothing to interfere with the operation of these banks, and we do not propose creating an institution which will in any way compete with them. We suggest delegating two powers only: first, the right to issue notes under certain well-defined conditions, in exchange for approved short-term commercial paper; and second, the power to deal in gold and foreign exchange. We do not even insist that a central bank be made the financial agent of the government. In our opinion this will be desirable, but it is not an essential part of our currency system, and it is our aim to reform that system first, without introducing unnecessary details and complications.

I now come to my second point, which is, how to create a more general knowledge of this most important subject. As I look back upon the speeches which I have made, and remember the addresses to which I have listened, it seems to me that all of us, when discussing this subject before a lay audience, make a profound impression upon ourselves, but leave those who have been patient enough to listen, with the idea that the subject is intensely complex and far beyond their understanding. This is unfortunate, because in reality the underlying principles are simple and readily understood.

The present situation is complicated, of course, by the fact that we have seven hundred millions in bank notes secured by government bonds, which the government has forced the bankers to purchase at a rate of interest not warranted by investment conditions. Before a banker purchases bonds as a basis for circulation, he estimates the value of the money which he is investing. The notes which he is enabled to issue must find employment, and unless the operation is profitable it is not under-

taken. This means that the general public in the end pay a proper rate of interest upon the bonds of the government, through an increase in the cost of their currency. If this simple fact is made clear, popular sentiment will be in favor of refunding our government bonds at a rate of interest which will cause them to be sought as an investment.

A number of ingenious methods have been suggested by which we take money out of one pocket and put it into another, to pay off these bonds. By far the best method is to meet the issue fairly and squarely, to borrow in the investment markets of the world what money the government may need, paying a fair rate of interest and not complicating our currency situation.

Once we have overcome this difficulty, we are able to make a fresh start, and it is of the first importance that students of this question, such as are gathered here to-day, and those who speak upon the subject, endeavor to impress upon the general public the simplicity of the problem, and to make them realize how readily it can be understood by the lay mind. Point out to them, for instance, that the functions of any note-issuing institution are merely those of a bank for banks. The man who is operating even the simplest industry will understand this, if you compare the bank's situation with his own. When conditions arise which make it impossible for him to collect as readily as usual the accounts due, or when through some change in trade conditions he finds himself with a larger amount of merchandise in stock than he can comfortably carry, he goes to his banker and explains his condition. If it is sound he pledges certain of his assets or his commercial paper properly endorsed, and obtains assistance until normal conditions reassert themselves.

When the banking community as a whole has extended all the relief within its power and then finds that collections are slow, or that merchants are overstocked with the merchandise in which they deal, there is no bank to which the bank can appeal for temporary assistance. If a central institution, created for the general good of the entire country, were in existence, the banks in turn would pledge the commercial paper which they hold, and obtain currency to meet the needs of the busi-

ness communities which they serve. There is absolutely no difference in principle, and if the problem be brought down to this level, it will be understood by anyone.

One of the conditions most essential to the successful operation either of the commercial bank which is to help the merchant directly, or of the central bank which helps the merchant indirectly by helping the commercial bank, is that power be intelligently exercised by somebody to say when expansion shall be checked. Many business men know that they have been tided over critical times by their banker, with the understanding that the assistance is temporary and that they must curtail their operations to an amount in proper proportion to their capital. The merchant is saved and is granted time to reconstruct his business upon safe lines. Without this advice and assistance he would have been forced to the wall.

In the same way a bank which has been attempting to carry an amount of business out of proportion to its available capital, may tide over an emergency, but conditions may be insisted on which will avoid the reccurrence of the situation. If you will consider the problem from this standpoint, many illustrations will occur to you, and I believe that the greatest good can be done if we start out to correct the impression that the problem is complicated and beyond the understanding of the average individual, and if we undertake to bring this discussion down to the level of understanding of those who conduct the most simple industries of the country.

AMERICAN BANKS IN TIMES OF CRISIS UNDER THE NATIONAL BANKING SYSTEM[1]

BY E. W. KEMMERER

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YOUR committee invited me a few weeks ago to prepare a paper reviewing Professor O. M. W. Sprague's *History of Crises under the National Banking System*,[2] and offering specifically my own constructive suggestions as to how the banking system should be modified to enable it to function properly in times of crisis. This is obviously a rather large undertaking, and I can only hope to consider briefly a few of the more important points.

Professor Sprague's monograph is a careful and critical study of the workings of the national banking system during periods of financial storm and stress. It studies in detail the crises of 1873, 1893, and 1907, and gives a brief consideration to the panic of May, 1884 and the financial stringency of 1890. The conclusions of the book are largely based upon the banking figures of the comptrollers' reports and of the weekly bank statement, and upon the published money market rates appearing in the financial press. Professor Sprague has used the best historical and economic material available on his subject; in saying this, however, it should be borne in mind that much of the most valuable material for the interpretation of events so recent is not yet available, and in the nature of the case cannot be during the lifetime of the principal participators. A bank is frequently described as a manufacturer of credit. The corner stone of credit is confidence—confidence of men in men. A panic is a collapse of credit. It is an intensely human affair,

[1] A paper presented at the meeting of the Academy of Political Science, November 11, 1910.

[2] Sprague, *History of Crises under the National Banking System*. Washington, Government Printing Office, 1910. Publications of the National Monetary Commission. (Senate doc. no. 538, 61st Cong., 2d sess.)

and many of the determining influences are of a personal and confidential character, and very inadequately reflected in the cold figures of the bank statement.

Let us first consider the chief points in Professor Sprague's treatment of the three crises, *i. e.*, those of 1873, 1893 and 1907, to which he devotes the major part of his book. Time will not permit an outline of the history of these crises, and I am doubtless safe in assuming on the part of an audience of this kind familiarity with their principal features.

CRISIS OF 1873

The crisis of 1873 marked the culmination of a long period of speculative mania and of low business and political morality, such as is liable to be the aftermath of a protracted and destructive war. For over a year there had been frequent forebodings of a financial panic. On the 18th of September, 1873, when the crop-moving demand for money was at its height, the banking house of Jay Cooke & Co. closed its doors, and with this act the beginning of the crisis of 1873 may best be marked. This crisis lasted about forty days and the events were of the character with which we are all too familiar.

Were the national banks of the country reasonably well prepared to meet the strain of this crisis? In answer to this question Professor Sprague shows[1] that during the four years immediately preceding there had been an expansion of loans amounting to 35 per cent, an increase of deposits amounting to 28 per cent, an increase in circulation of 16 per cent, and an increase in reserves of 5 per cent. This increase in reserves, moreover, being due entirely to greater holdings of gold, was largely ineffective because gold was not in general circulation at the time, and it stood at such a premium in terms of greenbacks that it was more of the nature of an investment than of a money reserve. In the case of each group of banks, *i. e.*, the country banks, reserve city banks and New York banks—New York was the only central reserve city at the time—there was a slight decline in the percentage of reserves to demand liabilities.

[1] pp. 9–13.

Deducting specie holdings from deposits, and taking the ratio of legal-tender notes to remaining deposit liabilities, Professor Sprague finds a serious change for the worse on the part of New York national banks, the percentage of reserve having declined from 31.6 for June 1871 to 25.2 for June 1873. The most menacing part of the situation, however, he finds[1] in the facts that the banks of the country had very largely increased their deposits of reserve money with New York city banks, and that seven of the New York banks by persisting in the practice of paying interest on bankers' deposits, against the will of the great majority of the associated banks, had secured (Oct. 3, 1872) 76 per cent of the net bankers' deposits (*i. e.* $45,000,-000 out of $58,900,000)[2]. These 7 of the 50 clearing-house banks had only 20 per cent of the total capital and surplus, and 18 per cent of the total deposits; their bankers' deposits, however, were $11,000,000 greater than their individual deposits, and their reserves were six-tenths of one per cent below the legal requirement; while the reserves of the other 43 banks, with individual deposits amounting to over eleven times their bankers' deposits, were eight-tenths of one per cent above. These seven banks were all known as Wall Street institutions and their loans were largely in connection with stock exchange dealings.[3] When the shock of the panic came these banks, which held as deposits a large percentage of the banking reserves of the country, and which, therefore, "were chiefly responsible for the maintenance" of the country's credit machinery,[4] quickly found themselves unable to meet the demands of outside bankers, and where forced "to resort for aid to their more conservative neighbors". On September 20th excitement on the stock exchange became intense and prices declined so rapidly that the governing committee closed the exchange, and it remained closed ten days. "Two trust companies, after withstanding runs for a short time, were obliged to close their doors," and one national bank failed. "The banks were receiving urgent demands for funds by telegraph from their banking correspondents in all parts of the country".[5]

[1] Sprague, pp. 13–17. [2] *Ib.*, p. 17. [3] *Ib.*, p. 24.
[4] *Ib.*, p. 35. [5] *Ib.*, pp. 43, 44.

The New York clearing-house association met the situation by vigorous measures. On September 20th it authorized the issue of clearing-house loan certificates and provided further "that . . . . the legal tender belonging to the associated banks shall be considered and treated as a common fund, held for mutual aid and protection, and the committee appointed shall have power to equalize the same by assessment or otherwise, at their discretion."[1] Immediately after this action the situation began to clear up,[2] and it appeared that the worst stage of the panic had been passed. "Had all the New York banks been purely local institutions," says Professor Sprague, "with no responsibilities to the rest of the country, there can be little doubt that they would have been able to weather the storm without further difficulty. But the most considerable withdrawals of currency which they had to meet came from out-of-town banks, and demands from that quarter showed no signs of diminishing, but rather increased day by day."[3] For several days the New York banks appear to have met their obligations to interior banks in the way of shipping currency,[4] and "all reports agree that the banks resumed lending operations upon the issue of clearing-house loan certificates."[5] The initial reserves, however, were too small for the volatile character of bankers' deposits in time of panic, call loans could not be appreciably reduced,[6] and the banks soon found themselves "at the end of their resources." On September 24th a resolution was adopted providing for suspension—a resolution which Professor Sprague [7] believes was amply justified under the circumstances. A currency premium running sometimes as high as 4 per cent existed for nearly a month.[8] Foreign exchange was disturbed, but the disturbance was of short duration, the domestic exchanges were temporarily deranged in many parts of the country, and were for a time completely blocked in Chicago. Numerous pay-roll difficulties were reported in many parts of the country.[9]

[1] *Chronicle*, Sept. 27, 1873, p. 411. [2] Sprague, p. 50.
[3] *Ib.*, p. 51. [4] *Ib.*, pp. 52 and 53. [5] *Ib.*, p. 53. [6] *Ib.*, p. 45.
[7] *Ib.*, p. 54. [8] *Ib.*, p. 57. [9] *Ib.*, pp. 71–74, 75.

Despite the lack of preparation with which the New York banks approached the crisis, and particularly the seven banks holding the lion's share of bankers' deposits, Professor Sprague believes that, "in comparison with the banks in the reserve cities, the New York banks responded remarkably well to the demands made upon them."[1]

The author's conclusions with reference to the functioning of national banks in the crisis of 1873 seem to be substantiated by the evidence, and while the writer is inclined to disagree with him on a few minor points, he can see no reason to doubt the essential soundness of his principal contentions.

CRISIS OF 1893

The next important crisis was that of 1893, which is generally considered to have been due primarily to the loss of confidence and fear of a depreciated currency caused by the inflation measures of the period, such as the excess of federal expenditures over receipts, the increase in the bank note circulation, and especially the monthly issues of treasury notes for the purchase of silver under the Sherman act. The long period of depression following the crisis is commonly attributed largely to the agitation for free coinage of silver. Professor Sprague believes that the influence of currency inflation in starting the panic has been greatly exaggerated, and finds other causes[2] largely responsible for the outbreak, and especially for the depression which followed; causes such as "unremunerative prices for agricultural staples, and the heavy load of farm-mortgage indebtedness; also railway receiverships, which were due to the oversanguine estimates of the future and reckless financing of the wildest sort." While I believe that the currency inflation of the period (actual and prospective) directly and indirectly had a greater influence in causing the crisis of 1893 than Professor Sprague's discussion implies, and find his arguments upon this point inconclusive, this is not the place to attempt to weigh the relative importance of various causes of the crisis. Suffice it to say that a crisis which had been threat-

[1] Sprague, p. 89.

[2] *Ib.*, p. 154.

ening since 1890, and which had been stayed by the fortunate crop situation in 1891, broke out in the summer of 1893, continued until the fore part of September, and was then followed by a long period of depression ending the latter part of 1896.

During the eight months ending with May, 1893, there had been a slight loan contraction on the part of the banks of New England and the middle states, and a substantial expansion on the part of those in north central and western states; in the southern states loans were stationary.[1] For all national banks the proportion of cash reserves to deposit liabilities was 16.6 per cent in May, 1891, 18.4 per cent in May, 1892, and 16.9 per cent in May, 1893.[2] For the last date Professor Sprague concludes that the "statistical position of the banks was . . . . reasonably satisfactory," but that the banks were carrying a large amount of doubtful loans made in part before the panic of 1890 and in part recently, "serving to bolster up weak enterprises and to make an already unhealthy situation more unsound."[3] The New York City banks upon which fell the enormous responsibility of handling a large part of the country's bank reserves "were not so strong in cash reserves . . . . as the responsibilities of their position demanded," but were "far more amply provided with cash than has been customary in periods of active business either before or since."[4] For some months prior to the outbreak of the panic the New York banks had carried out slowly and with comparatively little difficulty a policy of loan contraction.[5]

The failure of the National Cordage Company on May 4th may be considered the event which marks the beginning of the panic. The situation, however, was not at its worst until nearly a month later. Call rates reached 74 per cent in the stock panic of the last week in June, and prime paper was quoted at from 8 to 15 per cent with business almost nominal. The number of commercial failures rose from 214 for the week ending June 1st to 527 for the week ending July 20th.[6] Meanwhile the outflow of gold continued, though at a slackening pace.

[1] *Ib.*, p. 160. [2] *Ib.*, pp. 160 and 161. [3] *Ib.*, p. 161. [4] *Ib.*, p. 153.
[5] *Ib.*, pp. 163 and 164. [6] *Bradstreet's*, vol. xxi, pp. 369 and 483.

Professor Sprague says, "Nineteen national banks were placed in the hands of receivers during May and June, and the number of state and private banks which fell was even greater".[1] Throughout entire sections of the country there was widespread distrust of the solvency of banks.[2] The surplus reserve of New York City banks had fallen during the three weeks ending June 17 from $24,600,000 to $8,700,000, largely as the result of demands of bankers for shipments to the west, and while no banks in the city were yet in difficulty, the machinery for the issue of clearing-house loan certificates was set up on June 15th, as "a precautionary measure which will tend to prevent contraction of loans if this drain goes on".[3] Professor Sprague says[4] that suspension was not at this time associated in the mind of any one with the issue of clearing-house loan certificates and that the common impression that suspension was immediately resorted to by the banks is an unfounded one. This, he claims,[5] is a point "of the very utmost importance, because in 1907 . . . . the tradition seems to have become established among New York banks that the issue of clearing-house loan certificates and the suspension of cash payments are virtually one and the same thing". If such a tradition has become established it is undoubtedly a false one. Professor Sprague's argument, however, is not conclusive when he says,[6] "the issue of clearing-house loan certificates does not seem to have changed in the slightest degree the relations between banks and their depositors," because "nowhere in contemporary journals has there been found a single reference to refusal or delay on the part of banks in meeting the demands of depositors for cash." The argument is inconclusive for the simple reason that the relations between a banker and his customers are such that there might be both refusals and delays without the matter getting into the public press.[7]

After the issuance of clearing-house loan certificates the bank

[1] Sprague, p. 168. [2] *Ib.*, p. 170. [3] *Chronicle*, June 17, 1893, p. 100.

[4] Sprague, p. 171. [5] *Idem.* [6] *Ib.*, p. 171.

[7] *Cf.* A. D. Noyes, The Banks and the Panic of 1893. *Pol. Sci. Quart.*, March, 1894, p. 26.

reserves continued to fall away, the surplus reserve of $8,700,000 of June 17th became a deficit of about $5,000,000 July 8th, a deficit which was reduced somewhat the following week.[1] About the middle of July, according to Professor Sprague, "the situation . . . . was such as to give rise to hopes that the worst of the crisis was over." Reported currency movements were in favor of New York, and the prospects appeared good for the repeal of the silver-purchase law. The returns of national banks to the comptroller on July 12th showed that with the exception of New York banks, which had increased loans $1,300,000 and had decreased reserves from 28.5 to 25.3 per cent, all classes of banks, *i. e.*, country banks, reserve city banks, and central reserve city banks, had resorted to contraction, and had a higher percentage of reserves than at the beginning of the two months' financial strain. In other words, to quote Professor Sprague,[2] "the banks in all parts of the country were relying upon the New York banks to supply them with the bulk of the money withdrawn by depositors, and by loan contraction were positively strengthening themselves". Up to this time in the crisis "the New York banks had fully lived up to the most exacting requirements which the responsibilities of their position as central reserve agents placed upon them . . . ."

During the third week in July another wave of distrust of the banks swept over the West and South. Between July 14th and August 1st, thirty-three national banks suspended, there were numerous other failures, and heavy withdrawals of funds from the New York banks were again resumed. The Erie railroad went into the hands of receivers, there was a severe panic on the stock exchange, and "suddenly and unexpectedly," to quote Professor Sprague,[3] "the banks throughout the country, beginning with those in New York, partially suspended cash payments". A currency premium — more correctly a check discount — appeared August 3d and continued a month, amounting on several occasions to as much as 4 per cent.

At the time that suspension occurred Professor Sprague[4]

[1] Sprague, p. 172. [2] *Ib.*, pp. 174, 175. [3] *Ib.*, pp. 177 and 178.
[4] *Ib.*, pp. 178 and 179.

finds that the situation was in many respects improving, foreign purchases of our securities were made in large quantities during the week ending July 29th, gold at the same time began to move toward this country, and "there was no reason to believe that the continued demand for shipments of currency to the interior would not be discontinued in the course of time in August." This last statement appears very doubtful when one remembers that the crop-moving demand for cash normally begins in earnest the latter part of August and continues strong throughout September and October. Furthermore, it seems probable that, although the speedy repeal of the silver purchase law was anticipated in England, the chief cause for the heavy purchases of our securities by Englishmen at this time was the slaughter prices resulting from the stock-exchange panic.

Assuming that conditions were improving, Professor Sprague asks why suspension with all its attendant evils should have taken place. His answer[1] is that the real reason was the same as that pointed out by the clearing-house committee in 1873, *i. e.*, the fact that the drain had fallen, not equally upon the banks, but far more seriously upon the few large ones which insisted on paying interest on bankers' deposits, and which held the bulk of those deposits, against which cash was being so heavily demanded. Professor Sprague believes[2] that considering the many hopeful factors in the situation, the arrangement for equalizing reserves which was adopted in 1873 would in this instance have availed with "a practical certainty" to prevent suspension, and that the banks were negligent of their own best interests and of their obligations to the public in not equalizing their reserves. Whether the equalizing of reserves would have prevented suspension in 1893 any more than it did twenty years before appears to me to be much less probable than the "practical certainty" which Professor Sprague maintains. That it would have helped the situation materially I think there can be little doubt, and I believe with him that there was a heavy moral obligation upon the New York banks, as the holders of a large part of the country's ultimate reserves,

[1] Sprague, p. 181. [2] *Ib.*, p. 183.

to resort to this measure before yielding to suspension. As he points out, if suspension must ultimately be resorted to, it makes little difference (under suspension) whether cash reserves are high or low. "Whatever excuses may be made for suspension," Professor Sprague says,[1] "it was wholly without good cause that the banks persisted in this policy while their reserves were increasing in the rapid fashion which marked the last two weeks of August." To this I believe the reply may properly be made that suspension was never complete, some cash being paid out during the entire period, that the amount of such payments increased the latter part of August, that it was not until August 28th that the House of Representatives voted to repeal the silver-purchase clause, that the crop-moving demand for cash was becoming strong, particularly in the south, and that such a drastic measure as suspension once having been taken, the banks were not subject to much censure for refraining from returning to complete cash payments until they felt that the situation was well in hand. There was an average deficit in the reserves of the New York banks for the week ending August 26th of $6,700,000, and for the week ending September 2d of $1,600,000. The ratios of reserves to deposits for these two weeks respectively were 23.2 and 24.6.

CRISIS OF 1907

The last crisis to consider, and in many respects the most serious one the country has had, is that of 1907. The events of October and November of that year, the financial losses, the hardships and the anxieties, hold too vivid a place in our memories to require description here, and we may pass at once to a consideration of the banking situation as it was immediately before and during the crisis.

For some years the United States as well as Europe had been passing through a period of almost unprecedented business expansion and speculative buoyancy; prices of commodities and stocks, dividends, interest rates, and wages were advancing, largely under the influence of phenomenally increasing gold

[1] Sprague, p. 190.

production. In the United States the business community was optimistic almost without bounds. Bankers shared in this optimism, and banking credit was unduly extended. For national banks as well as for other kinds of commercial banks the percentage of capital to other liabilities had greatly decreased during the preceding ten years,[1] likewise the percentage of cash holdings to deposits.[2] Trust companies had shown a phenomenal growth in numbers and in the amount of strictly banking business which they were doing; and being at the time altogether inadequately controlled either by the government or by the clearing houses, they represented a weak spot in the banking situation.

Despite the frequent warnings of an impending crisis, and the stock market panic of March 1907, the national banks of the country at the time of the August 22d statement to the comptroller were in what was for that time only a normal condition of strength, and this, says Professor Sprague,[3] "was not on account of any exercise of restraint in making loans, since the increase during the previous twelve months was greater than for any other year of the period under review". While Professor Sprague's statement is true that the figures show no evidence of restraint on the part of banks in making loans, his assertion that the increase during the previous twelve months was greater than for any other year of the period under review is misleading. It is true only if one compares absolute amounts, but the country's banking business had grown greatly since 1897, loans of national banks had more than doubled, and comparisons of this sort should obviously be in terms of percentages. On such a basis the increase for 1907 over 1906 was but 9 per cent, while that for 1899 over 1898 was 15 per cent and that for 1901 over 1900 was 12 per cent.

Analyzing the conditions of the different groups of banks, our author concludes that "leaving the New York banks out of consideration, every group of banks except those of St. Louis was in a slightly stronger condition in 1907 than in 1906;

[1] National Monetary Commission, *Statistics for the United States*, p. 30.

[2] *Ib.*, pp. 31, 33, 34 and 36.

[3] Sprague, p. 219.

and all, judged by the average of the preceding half-dozen years, were in a normal condition of strength; but as their condition was somewhat less strong than at the time of the reports immediately preceding the financial crisis of former years, it should have been evident that in case of an emergency the pressure upon the banks of New York would be even greater than in the past."[1] During the preceding ten years the loans of the New York banks had not increased so rapidly as those of national banks in general, and throughout the period New York banks "were evidently handling their loan account so as to keep just above the 25 per cent requirement against deposits".[2] "New York still maintained its commanding position as a debtor of national banks,"[3] but the New York banks were under no greater relative obligation to other national banks than they had been during previous years.[4] The New York situation, however, had been much weakened as compared with that of 1897 by the tremendous growth of trust companies and state banks,[5] and by the very large extent to which these institutions, whose reserves were "notoriously inadequate," kept them on deposit in national banks. This obviously meant a great increase in the burden and the responsibility placed upon New York's national banks; for in an emergency such deposits of reserve money would certainly be quickly called for. The close affiliation between many national banks and trust companies, and the ease with which loans, deposits, and reserves might be "shifted" from one to the other, greatly obscured the situation, and during the years before the crisis, "the surplus reserve became quite as much an object of mirth as of confidence".[6]

As in the crisis of 1873 and 1893 a few interest-paying New York banks held the great bulk of bankers' deposits—those both of national banks and of other banks — but these banks, now six in number, had grown greatly in their relative position. In 1873 the seven banks which held the lion's share of bankers' deposits "controlled only about 30 per cent of the resources of all the New York national banks. In 1907 the six banks con-

[1] Sprague, p. 221. [2] *Ib.*, p. 222. [3] *Ib.*, p. 223.
[4] *Ib.*, p. 224. [5] *Ib.*, pp. 224–228. [6] *Ib.*, p. 228.

trolled over 60 per cent of the total. . . . The ability of the other banks to assist the six banks in an emergency, as was done in 1873, was clearly very much lessened; at the same time the power of the six banks, taken together, to cope with an emergency was vastly increased".[1]

Another factor weakening the situation was the large and increasing amount of loans made by outside banks in New York City;[2] the loans made by interior banks in New York City were estimated to have amounted in 1906 to no less than $300,000,000.[3] "The outside banks," says Professor Sprague, "feel no responsibility for the course of the market. They will naturally withdraw from it when affairs at home require more of their funds or when they have come to distrust its future. It therefore becomes necessary for the local banks in the money center to be able at all times to shoulder at least a part of the loans which may be liquidated by outside banks, and also to supply the cash which they thus secure the power to draw away."[4]

The large government surpluses of the period and the "grandfatherly attitude towards the banks" adopted by the government, especially by Secretary Shaw, he thinks,[5] "tended positively to encourage unsound banking." He is disposed, however, to minimize the influence of this factor and, I think, underestimate its importance. This grandfatherly assistance, I believe, had materially weakened the sense of public responsibility on the part of the banking community—weakened it out of proportion to the actual amounts of money involved.

Taking these and other influences together, Professor Sprague concludes[6] that the New York money market was far more subject to severe strain in 1907 than at any other time covered by his investigation.

Passing over the work of the committee of trust-company presidents in relieving the strained situation at the approach of the October panic, and the useful services performed by Mr. J. Pierpont Morgan in forming the money pools of October 24th

[1] Sprague, pp. 233, 234. [2] *Ib.*, pp. 228, 229.
[3] Noyes, *Forty Years of American Finance*, p. 356.
[4] Sprague, p. 229. [5] *Ib.*, pp. 230, 231. [6] *Ib.*, p. 230.

and 25th, we may next note one of the most striking features of the panic, *i. e.*, the lack of confidence in banking institutions. The runs upon the trust companies naturally resulted in heavy demands upon clearing-house banks for the trust-company reserves which these banks held on deposit; and

> everywhere the banks suddenly found themselves confronted with demands for money by frightened depositors; everywhere, also, banks manifested a lack of confidence in each other. Country banks drew money from city banks and all the banks throughout the country demanded the return of funds deposited or on loan in New York.[1]

It was not until Saturday, October 26th, that clearing-house loan certificates were authorized, and Professor Sprague contends that the failure to issue them at least as early as the preceding Tuesday was the most serious error during the crisis.

Immediately upon the issue of clearing-house loan certificates cash payments by the banks were restricted. A currency premium appeared October 31st and continued, to the great disturbance of trade, both domestic and foreign, for nearly two months. Professor Sprague discusses at length the situation of the New York banks just before suspension, and concludes that the situation at the time and the prospects afforded no justification whatever for such a "discreditable step."[2] His argument here loses force somewhat by reason of the fact that the figures of the weekly bank statement upon which he is compelled to depend are average figures for the week, and do not show the situation from day to day or upon any particular days. Obviously the average figures for the statement of October 26th, for example, might be very favorable, although the situation on, say October 25th, had been most unfavorable. Here Professor Sprague is compelled to resort to estimates and guesses of more or less doubtful validity, although it should be said that for the most part his estimates appear to be reasonable and conservative. His analysis[3] of the figures for the bank statements of October 19th and 26th brings out some striking differences among the six most important banks. Immediately after the

[1] Sprague, p. 259. [2] *Ib.*, p. 261. [3] *Ib.*, p. 267.

authorization of clearing-house loan certificates the banks adopted the wise policy of extending their loan accounts. They did not, however, adequately meet the demands for cash payments, and resorted to suspension, Professor Sprague believes,[1] altogether too readily. "It cannot be questioned for a moment," he says, "that suspension would not have occurred" had the banks resorted in 1907 to the arrangement of equalizing reserves as they had in 1873. Suspension, moreover, having once been adopted, was continued altogether too long, he says, claiming[2] that "for this prolongation of suspension there was not even a shadow or semblance of excuse."

With the subsequent course of the crisis we need not be concerned here, any more than to observe that foreign exchanges were seriously disturbed, domestic exchanges were dislocated, suspension extended throughout the country, and substitutes for cash to the estimated amount of over $500,000,000 were issued "without the sanction of law."[3] This is not a very creditable chapter in financial history for a progressive country like the United States.

Professor Sprague, it will be seen, though finding numerous defects in our banking system, is disposed to place a large share of the blame for our troubles in recent crises upon the banking community, and particularly upon those New York City banks which have held the lion's share of the country's deposited banking reserves. His arguments are strong, though not so final in many cases as the strong language of his conclusions would seem to imply. The book will exercise much influence upon intelligent public opinion, and it is the duty of the bankers in this city, with their wealth of inside information, to disprove his conclusions if they are false.

How far the blame for our too frequent and disgraceful financial breakdowns belongs to individuals and how far to our unscientific and cumbersome banking system, is a most difficult question to answer, and I shall not here attempt any apportionment of responsibility. One thing is certain, however. The

[1] Sprague, p. 273. [2] *Ib.*, p. 278.

[3] A. Piatt Andrew, Substitutes for Cash in the Panic of 1907, *Quarterly Journal of Economics*, August, 1908, pp. 515 and 516.

banking business, like the railroad business, is "affected" with a very large public interest, and the bankers of this city—the dominant money market of the country—have a great public responsibility. They are to a very high degree public trustees. I am glad to say that there are signs of a growing sense of this trusteeship.

SUGGESTIONS FOR REFORM

A study of the crises of 1873, 1893 and 1907, and of the numerous minor critical periods in the financial history of the last generation is not calculated to impress one with the smooth working of our banking machinery. No other advanced country in the civilized world has experienced such a disastrous series of financial collapses, suspensions, disrupted exchanges, and currency makeshifts during the past forty years, as the United States. I would be the last to maintain that these unfortunate experiences have been principally due to our defective banking machinery. We have been running too fast to avoid stumbles. I do believe, however, that the serious defects of our banking system have been very great stumbling blocks.

Your committee have asked me to make positive suggestions looking toward the more perfect functioning of our banking system in times of crisis. I am not one of those who have a panacea for currency and banking ills, and the few rather commonplace suggestions I have to make at this time are tentative, and, like railroad time tables, "subject to change without notice."

As regards its functioning in times of threatened and actual crisis, the most serious defects of our banking system are, broadly speaking, two in number. The first is lack of coördination and centralization. The different parts work at cross purposes and without leadership at just the time when coöperation under leadership is most needed. There is nothing so unreasoned as a panic. It is an illustration of the mob mind, and like a mob can be handled effectively only by a leader acting with promptness and decision. The second defect is lack of elasticity not only in bank-note circulation, but in bank credit in the broader sense of the term. As has been frequently

pointed out, American paper is essentially local paper. The national banking act as interpreted by the courts prevents the acceptance by banks of time bills drawn on them.[1] The rediscount business among our banks is almost negligible, amounting to a very small fraction of one per cent of the loans and discounts,[2] and unlike European countries "we have no modern and readily salable paper which in critical times we can offer to foreign markets."[3] When we add to these facts the extremely inelastic character of our bank notes, the rigid nature of our legal reserve requirements, and the fact that being to a very considerable extent an agricultural country, our seasonal variations in the demand for money and capital are very pronounced,[4] we see that we are a country in which elasticity of currency and credit is both particularly important and peculiarly lacking. The relations between our treasury department and the national banks, moreover, encourage on the part of banks the practise of depending upon the government for aid in times of emergency, and tend to prevent the banks from making independently, in advance, proper provision for the regularly recurring heavy seasonal demands, to say nothing of crises. It is well to note in this connection that crises are most liable to occur in those seasons which are normally characterized by a stringent money market.[5]

[1] *Cf.* list of cases cited in *Comptroller's Report*, 1904, vol. iii, pp. 5, 6 and 7; also Morse, *Banks and Banking*, 4th ed., vol. i, pp. 348 and 349; L. M. Jacobs, *Bank Acceptances* (National Monetary Commission); and Paul M. Warburg, *The Discount System of Europe* (National Monetary Commission Publications).

[2] It is well known that rediscounting is sometimes done in a covert way and under guise of other transactions. Comptroller Murray said in an address at the meeting of the National Association of Supervisors of State Banks, September 12, 1910, "Rediscounts are often made through the alleged 'sale' of the bank's paper, which is endorsed 'without recourse.' There is almost always, however, a separate agreement that if the paper is not collected at maturity, it is to be charged back to the selling bank, so that it really constitutes a concealed liability."—Circular Letter of National City Bank, October, 1910.

[3] Paul M. Warburg, Central Bank of the United States, *American Economic Association Quarterly*, April, 1909, p. 342.

[4] *Cf.* Kemmerer, *Seasonal Variations in the Demand for Money and Capital* (National Monetary Commission Publications).

[5] *Ib.*, p. 222–223.

For these reasons I believe in a central bank. The size and complexity of our banking machinery, instead of being an objection to such an institution, as Professor Sprague finds it, is to my mind one of the strongest arguments in its favor. The country is adequately supplied with commercial banking facilities, and there is no need of a central bank to deal directly with the public. There is, however, a need for a bankers' bank which will deal exclusively with banks and serve as the capstone of our banking system. This would be, not a revolution in our banking methods, but one further step in their evolution. I see no other way of obtaining prompt and effective action for the prevention and control of crises and at the same time of obtaining a credit elasticity which is both adequate and safe.[1] If the government does not provide such an institution, there is reason to believe that the further development of community of interest among a few large financial concerns of the country, particularly of New York city, will bring about a centralized control without adequate government control or adequate publicity. In other words, it is not so much a question as to whether we shall have centralized control or not, as it is whether that control shall be exercised in the open, along lines laid down by the government, or *sub rosa* along lines of natural development under the motive power of a narrower self-interest.

This is not the place to give a detailed plan for a central bank, and the planning of such an institution, I realize, is largely a matter of detail. A few general postulates, however, may be expressed categorically.

(1) The capital should be substantial, certainly not less than $150,000,000, and should be held only by banks; the voting power should be widely diffused, and rigid provisions should be made to prevent its being directly or indirectly con-

[1] It is interesting to note that Professor Sprague, who has proved such an able critic of the central bank idea, has very great confidence in the efficacy of equalizing reserves in times of crises, and says that during the continuance of this equalized-reserve arrangement in 1873 "the banks were converted, to all intents and purposes, into a central bank, which, although without power to issue notes, was in other respects more powerful than a European central bank . . ."—*History of Crises*, p. 90.

centrated in a few banks. Possibly an arrangement something like this would have some efficacy. Every bank with an unimpaired capital and surplus amounting to less than $100,000, and owning at least X shares of stock, should have one vote; every bank having an unimpaired capital and surplus of from $100,000 to $1,000,000 and owning at least $2X$ shares of stock should have two votes, every bank having an unimpaired capital and surplus of from $1,000,000 to $5,000,000, and owning at least $3X$ shares of stock should have three votes, and every bank having an unimpaired capital and surplus of $5,000,000 or above and possessing at least $4X$ shares of stock should have four votes. (2) While there is no need of the government's owning any stock, there should be a very substantial representation of the government on the board of directors, including *ex officio* the secretary of the treasury and the comptroller of the currency. The power of the government's directors should be real, not merely nominal, as was so frequently the case in the Second United States Bank under the presidency of Nicholas Biddle.[1] Moreover, when acting with substantial unanimity they should possess an effective veto power on important measures. (3) There should be a high degree of publicity in the bank's affairs, and frequent examinations and public reports. (4) The banks should benefit from the central bank, primarily in the control it exercises in stabilizing the money market, providing a sure place for the rediscounting of high-grade commercial paper, influencing the movement of gold, and taking the initiative and inspiring confidence in time of threatened or actual crisis. It should be primarily a centralizing and regulating institution, not a money-making one. The government should participate in its profits in a progressive way similar to the German govern-

[1] The government directors in a letter to President Jackson, dated October 8, 1833, said, "After this detail of incidents, and recollecting all that has occurred heretofore, you will probably agree with us, that the directors on the part of the government, at the board of the Bank of the United States, are utterly unable to perform the services which are due to their constituents." They also sent a memorial to Congress setting forth how they were rendered powerless as government directors, and how the most ordinary rights of inquiry were denied them.—*House Executive Documents*, 23d Congress, 1st session. I, Document no. 12. Quotation is from p. 40.

ment's participation in the profits of the Reichsbank. (5) It should become the depository of public funds, displacing our present antiquated and hybrid "independent-treasury-national-bank-system." (6) It should have the power of issuing an asset currency to the amount of its capital stock against high-grade commercial paper without special taxation, and to an indefinite amount in addition, though subject to a substantially progressive tax. A cash reserve of at least 33⅓ per cent should be required against both net deposits and note issue, but the reserve should be usable in times of need, provided the bank paid the price, which should be a progressive penalizing tax based upon the degree to which the reserve was reduced below the legal minimum. In other words there should be substantial financial penalties to the undue expansion of the loan account, but no absolutely fixed limits. (7) In the course of time the present bank-note circulation should be somewhat reduced in relative amount, limited to a fixed percentage of capital, and placed upon an asset basis, with a required legal reserve and with double liability of stockholders, prior lien on assets, and a guaranty fund. Adequate provision should be made for the protection of holders of bonds when the privilege of issuing notes against them is taken away.

Aside from the proposition for such a central bank, which I realize contains few elements that are new, I wish merely to mention three supplementary points.

For years there has been much opposition to the practise of paying interest on bankers' deposits, although the opposition was much stronger a generation ago than it is today. The arguments against this practice advanced by the clearing-house committee, of which George S. Coe was chairman,[1] on November 11, 1873, to my mind, have never been answered. I believe that the evils of the practise outweigh the benefits, and wish the clearing-house association could of its own accord prevent its continuance. If this is impracticable, I believe that the government should recognize plainly the volatile character of bankers' deposits of reserve money, and should raise the legal reserve requirement for such deposits to at least 40 per cent.

[1] Quoted by Sprague, *History of Crises*, pp. 91–103.

The unfortunate influences on the banks, and on the money market generally, resulting from our system of caring for public funds, might possibly be mitigated for the time being if the government would decide what is a desirable working balance to be kept in the independent treasury, and should then keep the remainder on deposit in banks, making it clearly understood that the banks could not count upon any increase of federal deposits either in the fall, or in times of threatened panic.

Finally, let me say that I heartily sympathize with Professor Sprague's [1] proposal that national banks be authorized to establish true savings departments "with segregated deposits payable at notice, which might be invested in mortgages." In the carrying out of such a plan, it is perhaps needless to say, great care should be taken to prevent the juggling of accounts.

[1] *Quarterly Journal of Economics*, xxiv, pp. 203 ff., and 654 and 655.

BANK NOTES AND LENDING POWER[1]

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IN the panic of 1907 it was impressed on the public and on Congress that our monetary system was not of the kind that could successfully withstand the stress of a coming monetary stringency, or the greater dangers of a serious financial collapse. These impressions have led to the widespread demand for monetary reform, to the appointment by Congress of the National Monetary Commission, and the publication by this commission of a great mass of material on money and banking. These volumes may help in the education of Congress, but, because of their bulk, they are not likely to help very much in the education of the public. From these volumes, however, and from knowledge previously in our possession, the lessons to be had from other countries, as well as from our own country, must inevitably be drawn upon in framing the concrete proposals of the commission to Congress. Moreover, under our political methods, it is not a question as to what outside experts may propose, but what the leaders in Congress think can be passed through both houses under the present conditions of public opinion (educated, of course, as far as possible). This situation we must keep in mind in all our discussions. The lessons to be got out of these volumes, and the inferences from them which are applicable to conditions in the United States can without doubt be very simply presented. If so, and if made intelligible to the general public, there is a good chance that they can be impressed upon Congress and enacted into law.

We must of course beware of the man with cut-and-dried system, who has a beautiful theory sure to prevent all panics and to cure all the ills of industry. As in the case of any dis-

[1] A paper presented at the meeting of the Academy of Political Science, November 11, 1910.

ease, we must first find out what is wrong, and next try to discover a remedy to meet the particular ill. First, then, as to the difficulties disclosed in the past which must be overcome by a correction of our monetary system. Very recently Secretary MacVeagh, by his urgent suggestions to the national banks to organize currency associations under the Aldrich-Vreeland Act, of March 30, 1908, in order to be prepared for an expansion of bank notes in case of an unexpected emergency, has consciously or unconsciously indicated his belief—so far, of course, as his recommendation may indicate a belief—that monetary and credit emergencies can be met by the issue of bank notes. On the other hand, if his words were correctly reported, the chairman of the National Monetary Commission expressed the belief that the problem was not so much one of the circulation as it was one of the organization of credit. The problems, therefore, to my mind, seem to center about bank notes, on the one hand, and the power of a bank to lend on the other; (1) the needs of the public for currency, and (2) the needs of a bank when under pressure in meeting demands for loans.

The need of the public for currency to act as a medium of exchange in buying and selling goods, in paying wage rolls, in travel, etc. are obvious. In certain sorts of transactions, mainly in a part of retail trade, and in districts unused to banking methods, some form of money must be passed from buyer to seller. In total amounts, however, these transactions are insignificant in comparison with those transactions on a large scale which are carried on by checks, drafts, or bills of exchange—without the use of any form of ordinary money. With an increasing population, but chiefly with the increasing products bought and sold at retail, the demand for currency, such as it is, must normally increase absolutely in greater or less sums. For such needs an elastic bank-note circulation, slowly rising—but expanding and contracting sharply with seasonal demands—is imperative. Our present national bank circulation does not provide for this elasticity. It expands and contracts without any direct relation to the demands of the community. To this point of elasticity much emphasis has been directed; and I

do not wish to minimize its importance; but it is to be doubted if it is as vital as some suppose. If we used only bank notes (or other paper money) as a medium of exchange, the insistence upon an elastic bank-note circulation would be of first importance; and, in the limited field in which actual money is imperative, the need of an elastic bank-note issue to the general public remains highly important. Although we have the deposit currency as a medium of exchange which is perfectly elastic, the elasticity of note issues should receive attention in the due proportion of the importance of bank notes to other media of exchange, under normal conditions of business.

Still keeping in mind, however, the needs of the public for a medium of exchange and not the needs of the bank itself, it will probably appear to many that the demand of the public for expanding issues of currency is of vital importance in a time of financial distress, such as that in the autumn of 1907. To those who set most store by the virtues of an elastic bank-note issue, this seems the crux of the whole matter. It is supposed in a time of stringency that the public will demand more circulation; and to support this view the events of the panic of 1907 have been drawn upon as proof. It is true, of course, that government or bank notes could not be had in most cities during the height of the panic in 1907, even in small sums; and, as a consequence, the clearing house associations issued clearing-house notes (as distinct from clearing-house loan certificates) for circulation among the public. Without doubt, this inability to get cash for a small check on a bank, or at a paying office, made a deeper impression on the minds of the people than any other event during the panic. It was this popular belief in the need of more money to which Congress evidently catered when it passed the Aldrich-Vreeland Act, as a provisional measure before a coming election in 1908. It was, as everyone must admit, a striking commentary on the inadequacy of our banking and monetary system, that it was impossible for the banks to supply to employers of labor, and for the small needs of every day, a relatively small amount of currency having a general circulation. Yet, on the other hand, it is a fact that the total amounts of the clearing house notes for the use of the public were not

large, nor were they long outstanding. Moreover, as affecting the ability of the producing and trading firms to weather the stress of the panic, they had practically no influence whatever. The banks were more frightened than the public. The demands of the small local banks for additional precautionary reserves drew down the cash reserves of city banks more than did the demands of business men. This was the reason for the scarcity of circulation. The holding on to their cash by city banks was primarily in the interest of reserves, and therefore in the interest of those who wished loans, or who had to be carried for a time.

The power to expand their note issues (which are liabilities) could not have added to the cash reserves of the banks, and thus have enlarged their power to aid needy borrowers. It is true, however, that an expansion of note issues would have aided the banks indirectly; it would have allowed them to satisfy the urgent demand for a medium of exchange on the part of the public by passing out their notes and thus being able to retain lawful money, which could be used as reserves to support their loans and deposits. But, primarily, the issue of bank notes is for circulation in the hands of the public, and not for any serious advantage which they render in increasing the power of the bank to lend, and to stave off a panic. Accordingly the prevailing idea that we must provide against future panics, and avoid a repetition of what happened in the panic of 1907, by arranging for the rapid issue of bank notes in a time of emergency is quite aside from the real point; for it is based on the wrong assumption that it is the lack of currency in the hands of the public, and not the difficulty of the banks in lending, which is the critical thing at such a time.

This popular insistence on the view that we can prevent the occurrence of panics, and meet all the dangers of a financial crisis once it is upon us, by the device of an expansion of bank notes is, in my judgment, based on an erroneous analysis of banking operations in times of pressure. Very respectable authorities have asserted that our monetary system is radically at fault so long as it will not prevent the occurrence of panics. And the belief that the Bank of England or the Bank of France —as central institutions—have been able to head off speculation

and avert the evils of expanded credit, is referred to as an instance of what can be done by a central institution in this country. We have been led to think that the issue of notes is the means by which the effects of a crisis are met and its inconveniences reduced; in the case of England by the suspension of the bank act bringing out more notes from the issue department; and in the case of France directly by the increase of notes of the Bank of France. As we shall see later this appeal to the banks of England and France is wholly unfounded in fact.

The reserve city bank which can quickly increase its own notes can supply the demands made upon it by country national banks and correspondents,—provided the country bank wishes only currency for circulation in its neighborhood, and not for its own reserves. Here again, the new bank issues do not give the pivotal aid which some suppose always comes from additional circulation. Not being lawful money, they could not be used in reserves, and thereby would not—and could not—improve the lending power of the local country bank. They would, however, supply currency to the country bank which could be paid out if urgently demanded, and thus indirectly protect reserves.

Another advantage in emergency bank notes, of course, is the opportunity it presents to national banks having relations with state banks and trust companies. By issuing their own notes they may exchange them for lawful money held by banks outside the national system. In this way they can indirectly increase their lawful money, and consequently their power to lend.

All the above advantages are patent, and are arguments in favor of a margin of elastic note issues. But these issues have only a limited importance, and would not cure the fundamental difficulties existing in times of panic. The principal reason for this statement exists in the fact that obviously the bank cannot replenish its reserves, which are an asset, by an addition to its own notes, which are a liability. Apart from its illegality, it is a banking lie.

Moreover, the use of its cash resources in the direct purchase of any kind of bonds or securities to be deposited for the pro-

tection of its emergency notes would not only not improve, but really reduce the power of a bank to lend, and thus reduce its ability to aid needy borrowers. A sum of $100,000 in lawful money in the reserves would allow loans and consequent checking accounts of from $400,000 to $600,000, when borrowers are calling for help—provided borrowers used checks as a means of payment. Therefore, a bank would cripple itself, should it invest $100,000 of lawful money in securities in order to issue only $100,000 of notes, thus allowing loans of only the same amount. Consequently, no system of note issues based on the purchase of securities by cash will touch the centre of the need.

Finally, too much is made of the need of an elastic bank circulation in a time of panic, in view of the fact that we already have a perfectly elastic medium of exchange in our deposit currency, especially for all large transactions. The term "money" is loosely used. We use gold as a standard, but we do not use it to any appreciable extent as a medium of exchange. More than ninety-five per cent of our large transactions are performed by a check and deposit currency which rises and falls exactly in proportion to the exchanges of goods which call forth loans and bank deposits. Under existing familiar methods of payment by checks and drafts, the borrower who is able to get a loan, in a time of stress, has no difficulty whatever in meeting his maturing obligation by a check on a solvent bank. To get the loan is the important thing—not the particular form of liability which the bank gives him on making the discount. In fact, on getting the loan, the borrowing merchant would not wish to take out notes, and then be obliged to find a place in which to deposit them again. It is clear, therefore, that the mere power to issue bank notes in itself is not the only, or the most important, way of meeting an emergency brought on by a disturbance of credit.

We have heard much in this country about the need of an elastic bank currency. About a marginal elasticity to a large total circulation, in normal conditions, for seasonal demands, I have already spoken. There is no difference of opinion concerning that need. But most persons who advocate an elastic

currency have in mind a need of a very different kind—the need of help to borrowers in a time of panic. For a need of this kind, careful examination will disclose that the issue of bank notes is of minor importance and does not touch the real cause of difficulty at such a time. I say of minor importance; for the ability to pay off depositors in bank notes would undoubtedly give to customers of a bank the means of meeting maturing indebtedness. But the serious pressure comes from those whose deposit accounts are insufficient to meet heavy panic demands; then will the power to issue more notes (a liability) enable a bank greatly to enlarge its loans, without having thereby received anything which will increase its cash reserves? That depends entirely on what system of note issue we are going to adopt, and whether cash reserves are to be required for the notes as well as for demand deposits. If the latter, the power to issue notes would be of no assistance whatever in making additional loans to hard-pressed borrowers. In fact, in the proposed bill of the American Bankers' Association in 1908, I believe a reserve against notes was required. In short, there is no little confusion of mind as to the thing really needed in a time of panic.

It is a crude thought that an increase of bank notes is needed by the general public as a medium of exchange because of the inability of business men to exchange goods due to a scarcity of currency. The real difficulty resides not with the general public and the media of exchange—for checks are as good as ever as a medium of exchange if there are deposit accounts on which they can be drawn—but with the banks, with the power of the banks to expand their loans in a time of stress. This is the pivotal thing in any plan to relieve the distress of a financial panic (even with those who are urging an elastic currency as a cure-all).

III

So much for the relation of bank issues to the situation created by a financial crisis; but, as has been already pointed out, there are other elements in the situation of far greater importance. When we look back to the panic of 1907 we find

three important happenings, connected in purpose and need, and which altogether transcend the minor question of the issue of notes, or clearing-house currency for public use. These three points of central importance have to do with the lending power of the banks, and are as follows:

1. The importation of gold.

2. The deposit of lawful money with the banks by the Treasury.

3. The issue of clearing-house loan certificates.

Every banker, every borrower, who was concerned with the work of preventing disaster from spreading in 1907, knows how dominating were these three matters. Why? Because they directly touched the power of the banks to lend. There was a crisis, not because of a scarcity of a medium of exchange in the hands of the public, but because the central banks had had excessive demands made upon them for loans, and because they held paper which had become more or less unsound. A crisis comes because credit has been unduly expanded in a period of prolonged prosperity; in an optismistic spirit men have entered into transactions beyond their actual means, as is shown when the test of actual payment is exacted; and in a time of fright collateral as well as goods fall in price. In such a situation liquidation needs time if disaster is to be prevented. The banks are called upon to carry houses doing a legitimate business that are in trouble. Just when timid persons, or country banks, are drawing down cash reserves, the banks are forced by the situation to increase their loans. In the one week ending Nov. 2, 1907, the reserves of the New York banks fell $37,-000,000, while loans were increased $60,000,000. That showed that the New York banks met a difficult situation with courage and good judgment. At their own risk they came to the rescue of a hard-pressed business public. Everything centered on those things which would aid the lending power of the banks. It is needless to say that the issue by the bank of its own liabilities in the form of notes would be an insignificant palliative, and would not touch (except as before mentioned) the cash reserves, and the power to lend. The one central thing to be done was to increase reserves. Here is the crux of the whole

matter, whether it is a time of impending stringency or the storm center of a crushing panic. The bank's own notes (its own liability) cannot legally or morally be used to fill up its reserves (the bank's active asset). Here is the fatal deficiency of bank-note issues as a means of curing a panic. In 1907 the one thing needed was lawful money which could be used as reserves. We must face facts, and not be led away by theories. The New York banks got this lawful money in two ways: (1) by importing gold, and (2) by deposits from the treasury.

(1) They imported gold as a means to enable them to aid needy borrowers. They used their resources to buy or borrow over $100,000,000 of gold, because it was one of the forms of lawful money by which reserves could be filled up. By anyone who had the means of purchase, gold could be got in a week from Europe. Therefore, gold proved to be the one part of our monetary system, besides checks on deposits, which was perfectly elastic. It could be increased by importation, or decreased by exportation, at will.

(2) But gold was not the only form of lawful money. When banks were being drained of their reserves, the main recourse was to the treasury of the United States. Unlike bank notes, government deposits directly increased the reserves, and increased the lending power of the banks from four to six times the deposits. The secretary, in leaving the largest sums in New York banks, the centre of the disturbance, gave his aid where it would do the most good. It is obvious that the service rendered by the importation of gold and the deposits of lawful money by the treasury could not have been accomplished by issues of bank notes.

(3) The most important of the devices resorted to in 1907, however, as well as in former panics as far back as 1861, was the issue of clearing-house loan certificates. What was the point of their issue? It was not that the country needed more money for general circulation, or more media of exchange—but that the banks whose reserves had run down needed aid for the purpose of lending to hard-pressed borrowers. In a crisis what is wanted—and wanted above all other things—is the loan. Once given the loan, the borrower has no difficulty in finding a

medium of exchange, by which he can transfer his credit in a way to satisfy his maturing obligation. The loan is the primary thing. All that the creditor demands is a means of payment acceptable in his community. It is just at this point that I venture to say we find the most confusion of thinking and the greatest amount of loose talking. It is carelessly assumed that the great need is an issue of bank notes, when in reality the great need is some means, whatever it may be, which will enable a bank to make loans to a client, who can thereby be saved from failure and from hasty and ruinous liquidation. The whole object of clearing-house loan certificates, then, is not to provide currency, but to make loans possible to needy and legitimate borrowers. After loans are made, checks provide all the means of payment anyone needs. The increase of a bank's liabilities does not increase its reserves, or its power to lend; so that the issue of bank notes, except as above indicated, is wholly aside from the point.

IV

Since the publication of many volumes by the National Monetary Commission, we are likely to hear much about the experience of the great banks in Europe.[1] But deductions from Europe, as has been pointed out by the chairman of the commission, must be made with caution. In England, conditions as to payments by deposit currency are much like our own; but in France very little work is done by checks drawn on deposits, and nearly all by the notes of the Bank of France; and much the same is true of Germany. Thus the same general principles of banking would work out in England, France, Germany and in the United States, but through very different instruments.

In England, in a crisis, aid seems, on the face of things, to be rendered by an increase of the Bank of England notes, when the Bank Act of 1844 is suspended. In fact, as you know, the act has not been suspended since 1866; and even when sus-

[1] In all there are no less than ten volumes issued by the National Monetary Commission on European banks, amounting to 4096 octavo pages (of which that on the German Bank Inquiry of 1908 alone contains 1162 pages) to say nothing of other subjects treated. For students these works are highly useful and convenient.

pended, very little use of the new notes has been made. Why? The issue department is as much separated from the banking department as if they were different institutions, although under the same management. The gold and securities behind the notes in the issue department are entirely separated from the resources of the banking department. Therefore, the latter can use the notes of the issue department in its reserves. The whole point of the suspension of the bank act lies, then, in the fact that the banking department can fill up its reserves by taking securities to the issue department and getting notes for them, under a temporary suspension of the law. The immediate object is to increase reserves so that loans can be freely made; while the idea of getting out more notes into general circulation, on any theory that the public needs more money, is not at all considered. The mere possibility of a resort to suspension is sufficient to quiet alarm, because legitimate borrowers know they can get loans whenever required; and, therefore, practically no use is ever made of the new notes. Of late years the change in the rate of discount is sufficient to pre vent reserves from falling to a point where suspension is ever necessary. Here again, in an emergency, it is a question of the lending power of the bank, and not the need by the public of more bank notes as a medium of exchange.

In France things are otherwise. An increase of loans by the Bank of France is necessarily carried through by an issue of more notes. Within the outside limit set by law, the bank can increase its issue at will. The essential thing, of course, is the ability to get a loan in an emergency; and, when that is obtained, then, as a matter of course the bank supplies the special form of liability which the business public demands—which in France is not a deposit account, but a note issue. Either would serve the same purpose as a means of payment; but that one is taken which custom prescribes, the check in England, the note in France. The fundamental thing is to be found in the power to lend, and not in the note issues. And back of that, it is the phenomonally high character of the short-time paper which allows the Bank of France to adjust itself quickly to changed conditions; together with the policy of keeping very high me-

tallic reserves behind the notes—perhaps eighty-five per cent. They escape panics in France by greater care than here in selecting only high-class paper at the central bank. Copper speculation, however, can bring disaster to a bank there as well as here. The Bank of France can maintain a low and uniform rate of discount chiefly because it is not a money-making machine and because it is exceedingly conservative in the kind of paper it discounts.

V

Working directly from the facts of our own experience, and from a reading of the volumes of the National Monetary Commission, we may be permitted a very brief statement of the constructive measures which should be undertaken to prevent the excessive and ruinous results of credit expansions in the future.

(1) First of all, emphasis must be placed on the indisputable truth that no monetary legislation can prevent business optimism, over-trading, and recurrent waves of speculation and liquidation. The control and reduction of such movements, which are sure to be pressed upon banks by an eager, money-making public, lie primarily in the hands of the banks. The banks are the servants of their constituencies; as a rule, they do not lead but follow the demand of their customers; but they must be willing not to follow too recklessly. Not infrequently we hear it said that European countries, with large central banks, have a system which prevents panics. The truth is that panics have been largely avoided in the last thirty years in such countries as England, France and Germany, because the management has been cautious and conservative in granting loans Quite irrespective of the external differences in banking organizations in the United States from the forms of organizations in England, France and Germany, we could as effectively suppress potential panics as they, if we were as willing to scrutinize loans.

(2) In the second place, we must not relax our efforts to satisfy the great want of an elastic bank circulation. We need what might be called marginal elasticity—a change of relatively small amounts on the margin of a fairly large normal circula-

tion,—dependent for its amount wholly on the demands of trade, and not on the fiscal needs of the government. The various bills presented to Congress—chief among which is the bill of the American Bankers' Association—bear on this general point. They are important; but, as previously explained, they do not provide a remedy for the situation existing in a time of panic. Expansion can go on and has gone on through the banking department of the Bank of England without the issue of any notes, and solely through the creation of deposit accounts as the consequence of expanded loans. Therefore, we must admit the fact that an elastic bank-note circulation, while bringing needed reforms, will not accomplish in times of stress what most persons have in mind at the present time when urging a change in our monetary system.

(3) Having now disclosed the real need, how can that need be effectively met? In the main, assistance must come in such a way that reserves can be enlarged with safety. Therefore, the emergency issues, if any are allowed, must be in some form of lawful money. How and by whom are they to be issued?

Certainly not by the government. The very first lesson of public finance is to learn to separate the fiscal from the monetary functions of the treasury. The state must separate its income and expenditures, its borrowings and payments, its fiscal duties, wholly and radically from its control over the monetary standard and the media of exchange. To confuse or to mix these, is to invite disaster at the first real crisis. Compare our chaos, when we confused these two things on and after February, 1862, when we made the first issue of greenbacks as a loan, with the stability of the French standard during the enormous expansion of loans in their crisis of 1870–3.

In brief, what is the essence of the remedy? Clearly enough, the lending power of a bank cannot be increased in an emergency by means of an increase in liabilities. It can come only by an operation dealing with its assets, and in such a way that a part of the assets, either bankable short-time paper or securities, can be transformed into means of payment which will enlarge the reserves. The whole emphasis should be put upon the matter of reserves. In the past, this work has, in

fact, been done either by using securities to import gold or to obtain government deposits, or by getting clearing-house certificates to the amount of seventy-five per cent of the value of chosen commercial assets. Such methods are irregular, voluntary, and clumsy. The underlying principles, however, should be incorporated into practicable, simple, legal means open to all, and well understood before any emergency arises.

The issue of clearing-house loan certificates has been, in my judgment, a means of averting untold disaster in many crises; the collateral behind them has been based on the fundamental business of the country; and they have always been retired at an early date without the loss of a dollar. Yet it is likely that as a practical device, they are somewhat clumsy, and possibly exposed to the ten per cent tax on state bank issues. Therefore they may be only the first step in an evolution to something even more effective, but built up on the same lines. It is always wiser to allow the remedy to grow out of our past experience, rather than to introduce an entirely new scheme to which it may take a long time to get adjusted.

Therefore, the central point of our banking reform, so far as I am able to suggest anything practical, is an organization for national banks, supervised by the government, but not under government management, which shall have the power, under regulations to secure great care in the selection of collateral, to transform picked assets and securities into forms of money which can be used as lawful reserves, with the usual requirements, by tax or otherwise for their early withdrawal as soon as the emergency has passed. This form of money need not appear in general circulation. This after all, is the essence of the operation in a crisis at the Bank of England—the country whose conditions are most nearly like our own. If we accept these principles and the general purpose, it would not be difficult to draft the law which should contain them.

We ought not to be wedded to names or preconceptions. It is immaterial whether such an organization is called a central bank or not. It is material, however, that it should accomplish the purpose of enabling a bank to meet a temporary paroxysm of credit by getting more reserves, and by increasing its lend-

ing power through the deposit of first-class collateral. My instinct is against any one large, centralized institution, the management of which might become an object of attack or a political prize in a campaign. It might be perfectly possible to secure a non-political management in fact, but you could never make the general public think so. So far as I can now see, it ought to be built up out of the present clearing-house organizations. There should be common action, and conference together of those who know the conditions of business in all parts of the country; but the actual judgment, when the quality of the paper and securities offered by a bank in order to obtain those reserve notes is to be passed upon, should obviously be given only by those in certain parts of the country who are familiar with persons and trade in the localities where the requests are made. Moreover, the relation of state banks and trust companies to the national banks in the larger cities, in a time of crisis, can be best regulated through organizations like the clearing-house boards. There should be no difficulty whatever in creating local or district clearing-house boards, chosen by the banks themselves—just as clearing-house committees are now chosen—who should pass upon the issues of those reserve notes. These district boards then might be united or represented for common action in a central board, who might have a veto upon the extreme action or the possible unwisdom of any one local board. The scheme has, moreover, the political advantage that it does not propose a money-making institution, nor a financial "octopus," but a simple, direct method of enabling the borrowing public to get aid from banks in time of distress.

Were such an organization once put into operation, I am firmly convinced that we should henceforth be preserved from the highly terrifying and unnecessary paroxyms of credit which have characterized our past financial history. More than that, we should then come to understand by actual experience—just as in England since 1844—that expansions and liquidation of credit may come and go wholly independent of the quantity of bank notes outstanding. Attention will then be taken away from the minor question of the quantity of notes in the hands

of the public, to the vital question of the character of the credit granted, and to the vigilant control over the kinds of discounts made by a bank. From whatever angle we approach the banking business, we are always forced sooner or later to recognize that everything depends upon the quality of the discounts and the kind of assets held as a consequence of making loans. The measures recently put into force by the present comptroller of the currency, such as more stringent examinations, and the credit bureau, are to be highly praised because they bear directly upon this general principle. It lies at the center of all real insurance, or protection, to depositors; and it lies at the center of our whole question of banking reform which aims to relieve us of the disasters of sudden and forced liquidation in times of panic.

RECENT TENDENCIES IN STATE BANKING REGULATION[1]

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THE banking question in the United States includes at least two problems. The more serious of these is the prevention of panics, such as those which occurred in 1893 and 1907. A less urgent, but important, problem is the minimizing of losses through bank failures. The two problems are not entirely distinct since panics, directly and indirectly, have been responsible for many of our bank failures, but the two may be considered as separate since most bank failures are due, not to the breaking down of the general credit structure, or the resultant depreciation in values, but entirely to causes peculiar to the particular institutions involved.

One of the great advances made by the national-bank act over the antebellum state banking laws lay in the superiority of those of its provisions which were designed to prevent the failure of banks and to minimize the loss to depositors consequent upon failures. Important amendments were made to the administrative features of the act in 1873 and 1876, which greatly increased its efficiency in this respect. Since the latter date, the national-bank act has remained essentially unchanged as far as its provisions for the regulation of banks are concerned.

When the state legislatures began about 1887 to build up anew their systems of bank regulation, they followed, although at a distance, the general plan of the national-bank act. Until very recently, the state banking laws might have been correctly described by saying that they represented all degrees of approximation to the national-bank act. Many of the state banking laws are still very far from rivaling the national-bank act in the

[1] The material used in the preparation of this paper was collected for the National Monetary Commission, and will be published in more detailed form in the publications of the Commission.

protection given to depositors. In some states no attempt has been made to secure the safety of deposits by the regulation of banks. In Arkansas, for example, state banks are incorporated on the same terms as other business corporations, the banks are not examined, and no power of supervision is given to any state official. Moreover, in very few, if any, of the states are the regulatory features of the banking laws in all particulars as well designed to secure the safety of deposits as those of the national-bank act. Within the last three or four years, however, the banking laws in several states have been amended with the avowed aim of making better provision for the safety of deposits than is made by the national-bank act.

These innovations have been of two different classes. In five states, since the panic of 1907, the legislatures have adopted, as the basis of their plans for securing the safety of bank deposits, some form of insurance, or guaranty of deposits through funds administered by the state. These laws have been fully described in two admirable papers recently published in the *Quarterly Journal of Economics* by Mr. Thornton Cooke,[1] and need not engage us here. The panic of 1907 was also largely responsible in many states for the general overhauling of the regulatory features of the banking laws. In some of these, the laws were merely assimilated more nearly to the national-bank act, but in others, important modifications in the plan of that act were made in the belief that the safety of deposits would thereby be better secured.

It is the purpose of the present paper to describe those provisions of the existing state banking laws which represent deliberate attempts to improve upon the regulatory features of the national-bank act. The most important of these may be discussed under the following heads: (1) the form of the capital requirement; (2) the restoration of impaired capital; (3) loans to officers and directors; (4) examinations by directors; (5) the power to authorize the incorporation of new banks; (6) the power to direct the discontinuance of unsafe and unauthorized practices.

[1] *Quarterly Journal of Economics*, November, 1909, and February, 1910.

THE FORM OF THE CAPITAL REQUIREMENT

The requirement that each bank shall have a specified minimum capital is fundamental in the systems of regulation laid down in the national-bank act and in the state banking laws. The capital of the bank is regarded as a buffer interposed between the bank's creditors and losses which the bank may suffer. If there is no capital or if the capital is small, losses may fall directly on the depositor, and the larger the capital stock, other things being equal, the less the likelihood of loss to the depositor.

Under the national-bank act the amount of capital required is graded according to the population of the place in which the bank is located. A very large number of the state banking laws have similar requirements. The grading of the required capital according to population has been due chiefly to the desire to bring about some adjustment between the capital of the bank and the volume of its business. It is assumed that the larger the business of the bank the greater the chance of its suffering large losses and the larger the capital necessary to protect its depositors against loss. It is also assumed that the size of the city in which the bank is located is a rough index of the amount of business done by a bank.

The grading of the amount of capital required according to the population of the place in which the bank is located is evidently a very crude way of securing a proportion between capital and volume of business. The elaboration of the scale is of some service, but there remain differences in the volume of business transacted in places of the same size and more important differences in the amount of competition which different banks must meet. In a few of the state banking laws the requirement as to capital is graded according to some more exact criterion of the amount of business done by the bank. The earliest attempt to apply this principle is found in the Iowa savings-bank law of 1874. The capital of banks incorporated under that act was fixed at $10,000, but it was provided that such banks might receive deposits only to the amount of ten times their capital[1]. If a bank secured deposits to a larger

[1] Iowa (1874), ch. 60, sec. 7.

amount, it was required to increase its paid-up capital. The efficacy of this provision has been much impaired by two amendments. In 1900 banks were allowed to count their surplus as part of their capital in making up the required capital;[1] and in 1902 the requirement was modified so as to demand a capital and surplus equal only to one-twentieth of the deposits[2].

A more important experiment in the same direction was made in Kansas from 1897 to 1901. In 1897 the legislature of that state, convinced of the desirability of grading in some way the requirement as to capital, enacted that the total investments of any bank, exclusive of United States bonds, should not exceed four times the capital and surplus actually paid in.[3] The purpose and operation of this clause was thus described by the Kansas bank commissioner:[4]

> One provision, which produced the greatest opposition, was the section which limited the total investments of every bank to four times its capital and surplus. The theory upon which the adoption of this section was urged was that a bank's capital should bear some proper proportion to the volume of business transacted by it; and there being no possible way by which the amount of deposits could be restricted, the idea of restricting the investments appeared to be not only possible but wise. It was argued in support of the proposition that it would result in an increase in the capital of small banks, thereby giving greater protection to depositors; that it would not be a difficult matter to procure additional capital when, for each $1,000 thus invested, the bank could invest $4,000, and above all, that banks should be content with receiving an income of $4 for every dollar invested. The operation of this section has resulted in nearly 100 banks increasing either their capital or surplus. Many have carried their entire earnings to surplus, thereby adding to the strength of the bank and the security of depositors.

The law was repealed against the objection of the commissioner in 1901,[5] and in 1908 a scale graded according to population was adopted.[6] In 1909, however, it was enacted that no

[1] Iowa (1900), ch. 67. [2] Iowa (1902), ch. 167. [3] Kans. (1897), ch. 47, sec. 9.

[4] *Report of Kansas Bank Commissioner*, 1897–98, p. viii.

[5] Kans. (1901), ch. 64. [6] Kans. (1908), ch. 15.

bank might accept deposits in excess of ten times its paid-up capital and surplus.

Within recent years seven other States—California, Nevada, Oklahoma, South Dakota, Texas, Nebraska and Rhode Island—have adopted similar methods of determining the amount of capital required. In California, by the act of 1909, a graded scale, ranging from $25,000 in cities of 5,000 population or less to $2,000,000 in cities of over 25,000 population, was replaced by a requirement of $25,000 for all banks, together with a requirement that the "aggregate of paid-up capital, together with the surplus, of every bank must equal 10 per cent of its deposit liabilities." If the deposits reach this proportion, the bank must either increase its capital or refuse to receive additional deposits.[1] In 1908 the legislature of Oklahoma gave authority to the bank commissioner to fix the proportion between capital and deposits, and in 1909 it was provided that no bank should receive deposits in excess of ten times its paid-up capital and surplus.[2] In South Dakota the proportion of capital and surplus to deposits must be 1 to 15;[3] in Rhode Island, 1 to 10.[4] In Texas a much more complicated arrangement has been introduced. On November 1 of each year the average daily deposits of the preceding year are computed. If the bank has a capital stock of not more than $10,000 and its deposits are more than five times its capital and surplus, the bank must increase its capital stock 25 per cent within sixty days, or keep its deposits within the prescribed limit. Similar provisions are made for banks of larger capital, but the proportion of deposits to capital and surplus is increased for banks of larger capital until in the case of banks with a capital of $100,000 or more the proportion allowed is 10 to 1. The Nevada and Nebraska banking laws provide that "loans and investments, exclusive of reserve, banking house, and fixtures," shall not exceed eight times the amount of capital and surplus.

In Kansas, Nebraska, Nevada, Oklahoma, South Dakota,

[1] Calif. (1909), ch. 76, sec. 19.

[2] Okla. (1908), p. 126; (1909), pp. 120, 121.

[3] S. Dak. (1909), ch. 223, art. ii, sec. 1.

[4] R. I. (1908), ch. 1590.

and Texas, the requirement that capital shall be in a certain proportion either to deposits or to loans is coupled with a capital requirement graded according to population. In California it is coupled with a flat minimum requirement. In Rhode Island the board of bank incorporation determines the amount of capital required for the incorporation of a bank.

The adjustment of the amount of capital required according to population serves another purpose, however, besides preserving roughly a proportion between the amount of capital and the amount of business, in that it also acts as a check on excessive competition. A requirement graded entirely or chiefly according to deposits or loans does not accomplish this end. For instance, if the capital required to establish a bank in a city of 3,000 population is $50,000, there will usually be only one bank in a place of that population, since there is not enough business to make it profitable for two banks to incorporate with that amount of capital. Under the California law of 1909 a bank with commercial and savings departments may be organized in any California town or city, even in San Francisco or Los Angeles, with a capital of $25,000. Competition is much freer under such a requirement than under a requirement graded according to population. Undoubtedly, the number of banks will be somewhat larger. The supervisors of banks in the different states appear to be in fair agreement that such a multiplication of banks is undesirable from the standpoint of safety and economy. It is likely, therefore, if requirements as to capital based directly on some index of business are introduced widely in the state banking laws, that they will, as in most of the laws now in force, supplement and not supplant the requirements graded according to population.

RESTORATION OF IMPAIRED CAPITAL

The period allowed for the restoration of capital under the national-bank act is three months. In a considerable number of the state banking laws which provide for the assessment of stockholders in case of impairment of capital the period is fixed at sixty days and in a few at thirty days. In the more recent laws, however, no period is specified, the supervisors having

power to fix the time, which may vary according to the condition of the bank[1]. Only in Florida and New Mexico is the period allowed as long as under the national-bank act.

LOANS TO DIRECTORS

The national-bank act contains no provisions regarding loans to directors, but in the banking laws of about one-half of the states attempts have been made to devise rules which would prevent the making of loans to directors in excess of the amount to which their credit entitles them. The provisions in the state banking laws concerning loans to directors may be resolved into three classes: (*a*) the requirement that a majority two-thirds, or all of the board of directors shall approve such loans; (*b*) a limitation on the amount of loans to directors more stringent than that on loans to other persons; and (*c*) the requirement that loans to directors shall be secured. Two or all three of these are combined in the banking laws of some states, but the requirement that loans to directors shall be formally approved by the board of directors is the one most frequently found. It has been thought that directors would be reluctant to vote for excessive loans to other directors if their vote is to be recorded.

In most of the states the provisions relating to loans to active officers of the bank are identical with those relating to loans to directors, but in some states they are more stringent. In three states—California, Nebraska, and Oklahoma—the active officers of a banking institution may not borrow from it. In Connecticut, banks and trust companies may not "discount any paper made, accepted, or indorsed by any of their executive officers or clerks." The desirability of forbidding banks to make loans

[1] The comptroller of the currency in his testimony before the National Monetary Commission recently said: "I think a bank that has an impaired capital ought to be made to make it good at once . It is rather a disgraceful condition of affairs now, and has always been since the national-bank act was passed forty-five years ago, to allow a bank to run along with an impaired capital and still continue to take people's money."—*Suggested Changes in the Administrative Features of the National Banking Laws*, National Monetary Commission (61st Cong., 2d sess., Senate doc. no. 404), pp. 229–230.

to their active officers has recently been urged by the Wisconsin special committee on banking[1].

EXAMINATIONS BY DIRECTORS

A considerable number of states in recent years have made provision for the examination of state banks at intervals by their directors. The chief purpose in providing for such examinations is to keep the directors informed as to the character of the loans and investments of the bank.[2] It is a matter of complaint by the state supervisors, as well as by the comptroller of the currency, that the greater part of the bank failures result from the neglect by directors of their duties. In his testimony before the National Monetary Commission, Comptroller Murray recently said: [3]

> In going over the records of the 500 banks that have failed, it is shown that nearly all of them, except those where there were defalcations and stealing, have failed because the directors have paid no attention to the banks at all, but have just left them drift until they actually became insolvent. The history of the office shows that no bank that has lived within the law, or where the directors have required the executive officers to stay within the law, has ever failed, and I believe one never will fail.

The result of neglect on the part of the directors frequently is that the bank officials or a coterie of interested directors misapply the funds of the bank.[4]

A secondary but important purpose in some of the states in providing for such examinations has been to secure a valuation

[1] *Report of the Wisconsin Special Committee on Banking*, 1910, p. 20.

[2] In order to bring the affairs of the bank under the observation of the directors, provision has been made in Michigan (1909, ch. 193) and New York (1909, ch. 155) that the directors or a committee of the directors at regular monthly meetings shall examine all loans and investments made since the last meeting.

[3] *Suggested Changes in the Administrative Features of the National Banking Laws*, National Monetary Commission (61st Cong., 2d sess., Senate doc. no. 404), p. 280.

[4] In order to insure as far as possible that the directors shall be financially interested in the welfare of the bank, the banking laws in a majority of the states provide that directors must be the bonafide owners of a specified number of shares.

of the bank's assets by the directors. As has been noted above, the central point in the regulation of banking in all the states is the rule requiring the maintenance of a specified capital, and the chief purpose in the examination of banks is to ascertain whether capital has been impaired. The bank examiner, with the advice and guidance of his official superiors, must therefore value the assets of the bank in order to ascertain whether they are of the value at which they are carried on the books of the bank, and in making such a valuation, the sworn valuation of the directors is of great service.

In 1910 the banking laws of 19 states—California, Georgia, Iowa, Kansas, Michigan, Mississippi, Minnesota, Nebraska, Nevada, New Hampshire, New York, New Jersey, North Dakota, Oklahoma, Oregon, South Dakota, Tennessee, Virginia, and Wisconsin—require the directors or a committee of the directors of a state bank to make an examination of the bank. In Missouri a committee of shareholders, elected as the shareholders decide, must make an examination. In most of the states examinations must be made at least twice a year, but in several states they must be made quarterly, and in others, annually.

In nearly all of the states which provide for the examination of banks by their directors, a report of the examination must be forwarded to the state supervisor; but in some of the states it is required only that the report shall be spread on the minutes of the board for the information of the supervisor or his examiner, and in three states—Virginia, Tennessee, and Nebraska—there are no provisions even for recording the result of the examination.

The character of the report which is to be made is not explicitly defined in some of the states. In Mississippi, Kansas, Nebraska, Nevada, North Dakota, Ohio, Oklahoma, Oregon, Virginia, and Tennessee it is provided merely that the directors are to make a thorough examination of the affairs of the bank. In Iowa and New Hampshire the report of the examination is made on blanks furnished by the supervisor, and must therefore cover all matters concerning which he desires information. In the remaining states which require such examinations the laws make explicit provision as to the character of the report. The

provision inserted in the New York banking law in 1905, which has been the model for most of the recent legislation of the same kind, requires, for instance, that the report "shall contain a statement in detail of loans, if any, which in the opinion of the directors are worthless or doubtful, together with their reasons for so regarding them, also a statement of loans made on collateral security, giving in each case the amount of the loan, the name and market value of the collateral, if it has any market value, and, if not, a statement of that fact and its actual value as nearly as possible." Similar provisions are found in the banking laws of California, Georgia, Michigan, Minnesota, Missouri, South Dakota, and Wisconsin.

Nearly all the laws providing for the examination of banks by their directors have been passed in recent years, and it appears likely that such examinations will shortly become a customary feature of the state banking laws. The committee on uniform laws of the National Association of State Bank Supervisors recommended in 1908 the enactment of similar laws in other States, and the recommendation was approved by the convention.[1]

POWER TO AUTHORIZE THE INCORPORATION OF NEW BANKS

The national-bank act confers authority upon the comptroller to withhold his certificate when it has been ascertained that the association has been organized for purposes other than those contemplated by the act. Also the organization of associations with a capital of less than $100,000 is subject to the sanction of the secretary of the treasury. Within the past two or three years the comptroller of the currency has been more careful than formerly in the scrutiny to which he subjects proposed incorporations of national banks. In his report for 1909 the Comptroller said:[2]

[1] *Proceedings of the Seventh Annual Convention of the National Association of Supervisors of State Banks*, pp. 21, 36. For an adverse opinion as to the probability of thus securing the interest of directors, see *Suggested Changes in the Administrative Features of the National Banking Laws*, National Monetary Commission, (61st Cong., 2d sess., Senate doc. no. 404), p. 356.

[2] *Report of the Comptroller of the Currency*, 1909, p. 17; see also *Proceedings of the Eighth Annual Convention of the National Association of Supervisors of State Banks*, 1909, p. 109.

To avoid the formation of associations for ulterior purposes or by those lacking the qualifications necessary to the successful conduct of the banking business, or in a place the population and business of which are insufficient to warrant the establishment of a national bank, the comptroller, upon receipt of an application to organize, causes a special investigation to be made, the results of which determine the favorable or unfavorable action.

One of the purposes in many of the states in abandoning the incorporation of banks by special act was to do away with favoritism in the granting of charters. The conditions for incorporation laid down in most of the general banking laws are of such a kind that the act of the state officials in issuing charters is purely formal. In several states, however, power has recently been conferred on the supervisors to exercise more or less discretion in authorizing the incorporation of new banks. In some of these states the powers thus conferred upon the supervisors are apparently broader than those explicitly conferred upon the comptroller of the currency. In North Dakota, Ohio, Michigan, South Dakota, West Virginia and Wisconsin the supervisors have power to refuse authorization if the bank is formed for other than the legitimate business contemplated by the banking law. In Minnesota the supervisor must be satisfied that the bank has been organized not only for legitimate purposes, but also "under such conditions as to merit and have public confidence." In Nebraska the state banking board must satisfy itself, before granting a license, that the incorporators are persons of integrity and responsibility. In Illinois the auditor may withhold the certificate of incorporation, "when he is not satisfied as to the personal character and standing of the officers or directors, or when he has reason to believe that the bank is organizing for any other purpose than that contemplated by this act." In California and New York the supervisors are required to inquire "whether the character and general fitness of the persons named as stockholders are such as to command the confidence of the community in which such bank is proposed to be located." These provisions are intended to give the supervisors power to prevent the formation of banking associations for illegitimate or fraudulent purposes and to

prevent the formation of such associations by irresponsible and inexperienced persons.

In a few states the banking laws give the supervisors still larger discretionary powers with reference to the authorization of new banks. In Rhode Island the board of bank incorporation must give a certificate that "public convenience and advantage will be promoted" by the establishment of any proposed bank before a charter is granted. In New Jersey the Commissioner of banking and insurance approves the certificate of incorporation of a bank, if it appears to him that the establishment of such a bank will be of public service. In South Dakota the public examiner may refuse a certificate if the business of the town or city in which the proposed bank is to be located does not warrant the incorporation of another bank. In Oklahoma the bank commissioner has refused to issue certificates of incorporation for banks when he considered the business of the town in which the proposed bank was to be located insufficient to support an additional bank[1]. In New York the superintendent of banks has had power since 1908 to refuse a certificate of incorporation to a bank if in his opinion the public convenience and advantage would not be promoted by its establishment.

Considerable difference of opinion appears to exist as to the desirability of conferring power to refuse authorization for the establishment of new banks in cities or towns where the supervisor regards the banking facilities as already ample. The New York special commission on banks in 1907 favored strongly the conferring of such powers on the superintendent of banks. They said:

> It has sometimes happened that banking institutions have been organized for no better purpose than to give employment to the parties bringing about the organization, without regard to the need of the locality. Because of the very high price that the stock of successful banks has commanded, institutions have been organized by promoters whose apparent ultimate object was to realize a profit by selling the same after organization was completed.

[1] *Proceedings of the Eighth Annual Convention of the National Association of Supervisors of State Banks*, 1909, pp. 85, 89.

At the seventh annual session of the National Association of the Supervisors of State Banks in 1908, the committee on uniform laws recommended that supervisors should be given authority to decide whether the proposed incorporators of a bank are proper persons to conduct a banking business, and also whether "any need of such a bank exists in the locality in which it is proposed to establish it." The recommendation was eliminated from the report as adopted, apparently because many of the supervisors were opposed to vesting in the supervisors any power to determine the need of a community for additional banking facilities.[1] On the other hand, the supervisors in several of the states have recently urged that they be given such powers.[2] In his report for 1909, the secretary of the state banking board of Nebraska said:

> There is one feature of the present situation in this state to which I desire to call your attention and for which there seems at present no adequate remedy, and this is the establishment of banks where banking often results in two or three, or more, weak or poorly-paying banks where fewer would be stronger and safer and meet all the requirements. Your honorable board should have the same privilege as the comptroller of the currency in the supervision of national banks. You should have a legal right, when application is made for a charter for a bank, to decide on the qualifications, the financial ability, the past record of the proposed management, and to determine whether or not the community where the proposed bank is to be established justifies the venture. Repeated instances coming to this department clearly indicate the necessity of some step in this direction.

POWER TO DIRECT THE DISCONTINUANCE OF UNSAFE AND UNAUTHORIZED PRACTISES

The national-bank act confers upon the comptroller of the currency power to appoint a receiver for an insolvent bank, for a bank which does not restore an impaired capital within three months, or for a bank which fails to keep the reserve required

[1] *Proceedings of the Seventh Annual Convention of the National Association of Supervisors of State Banks*, 1908, pp. 18, 34.

[2] *Fourth Annual Report of the Bank Commissioner of Idaho*, p. 5; *Report of Public Examiner of Minnesota*, 1907–8, p. viii.

by the act. For violation of certain specific provisions in the act with reference to the conduct of business, *e. g.*, the making of an excessive loan, the comptroller may cause to be instituted a suit for depriving the bank of its franchise. The comptroller has no power, however, to put an end to practises not explicitly forbidden in the national-bank act. He may remonstrate and warn the bank, but he cannot enforce his warnings.

Within the past few years there has been a growing tendency to give the state bank supervisors power of a much more indefinite and discretionary character. Authority to "direct the discontinuance of unsafe and unauthorized practises" or similar powers have, in 1910, been conferred on the supervisors in Arizona, California, Iowa, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, Nevada, New Jersey, New York, North Carolina, North Dakota, Washington, and Wisconsin. The provision in the California law of 1909 is typical of the provisions in those states in which the largest powers in this respect have been conferred upon the supervisors. It reads as follows:

If it shall appear to the superintendent of banks that such bank is conducting business in an unsafe and injurious manner, he must . . . direct the discontinuance of such unsafe and injurious practises. Such order shall require such bank to show cause, before the superintendent of banks at a time and place to be fixed by him, why said order should not be observed. If upon such hearing it shall appear to the superintendent of banks that such bank is conducting business in an unsafe or injurious manner, or is violating its articles of incorporation or any law of this State, then the superintendent shall make such order of discontinuance final, and such bank shall immediately discontinue all practises named in such order by the superintendent of banks.

There appears to be general agreement among the state supervisors that such an extension of authority is desirable. The grounds for this view have been set forth clearly in recent official and semi-official reports. In his report for 1907 the New York superintendent of banks said:

Among the causes contributing to the suspension of the closed institutions was a lack of supervisory power in the superintendent of banks. In some cases the department has called attention to practises which

were considered to be unsafe, but without avail. We believe that if the superintendent of banks had had the authority to enforce a discontinuance of such practises several of the state institutions now closed would not have found it necessary to suspend . . . It is true that he (the superintendent) may address his communications of criticism to offending corporations, but this method of correction is the practical limit to which he may go until conditions have reached such a point as to require his taking possession of the bank or trust company when it shall appear to the superintendent that it is unsafe and inexpedient for such corporations to continue business.

The laws conferring upon the supervisors authority to direct the discontinuance of unsafe practises have been enacted in most of the states so recently that it is not possible to obtain any comprehensive view as to how that power will be used. The following statement issued by the California superintendent of banks late in 1909 probably indicates in a general way the character of the "unsafe practises" which are being repressed by the supervisors:

The framers of the act of 1909 wisely recognized the absolute necessity for centralization of administrative power in one man, a superintendent of banks, and conferred upon the superintendent ample authority for the enforcement of necessary regulations. It is useless to prescribe remedial measures without at the same time conferring ample authority for their proper enforcement. The most striking illustration of this is the power conferred upon the superintendent to direct the discontinuance of harmful and injurious practises. By virtue of the same he has, among other things, directed the discontinuance of the practise of creating indebtedness on overdrafts, an old and vicious custom prevalent in many sections of the state; directed the holding of monthly meetings of boards of directors and their proper assumption of responsibility in the management of the bank's affairs, his position in this matter being greatly strengthened by similar directions of the comptroller of the currency, the bonding of officials responsible for the handling of funds, the insurance of bank premises, etc.

THE RELATION OF STATE TO NATIONAL BANKS[1]

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ANY plan for monetary reform which is to be successful must comprehend within its scope all the banks of the United States. They "must all hang together" or they will suspend separately. This unity can be maintained only through the hegemony of national banks under a national law. The recent history of state bank growth and the events of 1907 show that this leadership is not increasing as it should.

A survey of existing banking laws and practises in the several states and territories makes clear the nature of the rivalry of state banks and the reasons for their lusty growth. Shall the national system be enlarged to include the multitude of state banks? The terms upon which this can be done, if it can be at all, are determined absolutely by the facts of the present situation. Aside from the solution of this question the only end to be gained from a survey of state and territorial banking will be to discover expedients which would be useful if incorporated into the national banking laws.

An examination of the facts which Mr. Welldon and Dr. Barnett have placed before us shows that the important banking of our country is being done largely by three forms of incorporated institutions—national and state banks and trust companies. We confine ourselves therefore to the consideration of these three types. No distinction is made between savings and state banks in twenty-six states and territories.

The three types show different rates of growth. The differences are especially marked in the period from 1899 to 1909, when both state banks and trust companies increased in num-

[1] Based on *Digest of State Banking Laws*, by Samuel A. Welldon, and *State Banks and Trust Companies*, by George A. Barnett. Washington, Government Printing Office. Publications of the National Monetary Commission. (Senate docs. nos. 353 and 659, 61st Cong., 2d sess.)

bers, capital, and deposits far more rapidly than did national banks. The relative importance of the "nationals," in the total of the three, declined from 1882 to 1909 as follows: From 68.8 % to 35.7 % in numbers; 80.3 % to 54.5 % in capital; and 71.5 % to 47.1 % in deposits. The most formidable competitor bringing about this decline was the trust company. While state banks form over one-half the present banking institutions, the trust companies possess a large volume of capital, and that in the chief commercial centers.[1]

The trust company presents the most interesting development. It has given up the insuring of personal fidelity and land titles, and has extended its banking activities until at the present time it is generally viewed as a bank exercising addional functions, chief of which are trusts. This fact accounts for the recent tendency to legislate with regard to the different kinds of business rather than for banks of different names, such as state or savings banks or trust companies. In spite of this rapid expansion of the banking business of trust companies, it is quite clear that the greatest opportunities for trust-company usefulness and growth lie in the direction of trusteeships.

I

Shall the national banking system be enlarged to include the state banks and trust companies? The effective reason for the organization of banks under the general acts of the several states and territories is the greater advantage for profit-making under those laws. An extension of the national system by the voluntary conversion of other banks can come only by the offer of equal or greater advantage for profit.

The prevailing requirements for state banks may be sketched in their main outlines. The minimum capital required for state banks varies from nothing to $50,000 in the different states.[2] In the south and west the requirement is less

[1] New York city, deposits in 1910: trust companies, $1,245,000,000; clearing-house banks, $1,280,000,000.—*Trust Companies*, October, 1910, p. 246.

[2] A specific minimum capital is not required in Arizona, Arkansas, South Carolina and Tennessee. $5,000 is required in North Carolina. Elsewhere the minimum is $10,000 or more.

than the $25,000 required for national banks. Some twenty states require but $10,000 or less. In twenty-nine of the thirty-seven states and territories which require a minimum under a general law, the amount is graded according to population. In most of these states $25,000 is the maximum, though several require $100,000. As compared with the national-bank minimum of $25,000 for towns of less than 3,000 population, three states have higher, seven states have the same, and seventeen have lower requirements. As compared with the national-bank requirement of $50,000 for places of 3,000 to 25,000 population, over three-fourths of the states which prescribe a fixed capital have lower requirements. None of the states require more; in several they require much less. For cities of 25,000 to 150,000 three-fourths of all the states have lower requirements than the national-bank requirement of $100,000.

This difference in the amount of capital required is one of the noteworthy contrasts between national and state legislation, and this difference exists not only in legislation. 52 % of the 11,319 state banks in operation on April 28, 1909, had less than $25,000 capital, and 27 % had capital ranging between $10,000 and $15,000. A few states show some lack of banking ideals in permitting an authorized capital larger than the paid-in requirements, undue prolongation of the paying in of capital, and the payment of subscriptions to capital in things other than "cash" or "money of the United States".

The national-bank act requires one-tenth of net earnings to be set aside annually toward a surplus fund until it amounts to one-fifth of the capital. Nineteen states have this rule; seven states have more stringent provisions; Virginia has a lower requirement; and seventeen states do not require, by general law, such a surplus accumulation. In addition to this surplus fund added to capital, most states follow the national-bank act in providing for the double liability of shareholders. In nineteen states the shareholders are responsible "equally and ratably and not for one another". In fourteen states the shareholders are liable "jointly and for each other". Sixteen other states are more lenient, imposing no statutory liability whatever.

Where this liability was in force it did not prove efficient for the end desired. The courts held that the shareholder was bound to the creditors and not to the bank itself. Recent legislation is correcting this, however, by making the liability collectible by the receiver. The fact that it is a secondary and not a primary liability frequently delays liquidation and increases expense.

The most important method of protecting the depositor is by the regulation of loans. Provisions are in force determining what are excessive loans, restricting loans to directors and officers, and limiting loans upon bank stock or real estate. In order to insure a proper distribution of the risks of each bank, excessive loans need to be defined and prohibited in the United States, where small independent banks and large industrial establishments exist side by side. The national-bank act limits the amount of any single liability due a national bank to one-tenth of its capital and surplus and to 30 % of its capital stock. With the exception of two states, the state banking laws are far more liberal. Some twenty-two states allow from 15 % to 30 % of capital and surplus as the limit to each individual liability to a bank; and ten states have no limitations whatever.

The national bank act permits an excess if it consists of advances on *bona fide* bills of exchange and commercial paper actually owned by the negotiator. The state laws, in addition to these, make exceptions in favor of loans on real-estate mortgages (six states); loans on bills of lading and warehouse receipts (eight states); loans on collateral security (fifteen states); and loans approved by a vote of the directors (four states). This greater liberality may be accounted for by the smaller size of most of the state banks and the difficulty of enforcing restrictions. Even in the national system enforcement is not easily accomplished; for as late as September, 1909, over one thousand banks (or 15 % of the total) voluntarily reported excessive loans. Several of the eastern states have recently set limitations as to the amount of any one loan irrespective of the individual's liability.

Another important contrast between national and state banks is the power conferred upon the latter and denied the former

to loan upon real estate. The national banks are well suited to a city community where collateral, commercial paper and like securities, are relatively abundant, widely held, and rapidly turned over in taking profits. The state banks, on the other hand, are able to fill the needs of agricultural communities where real property is the chief asset of individuals and where the turnover by the nature of the crops is an annual one. This probably accounts for the numerical abundance of state banks in the west and south.

A few states limit the amount to be put into real-estate loans to a percentage of the capital, or assets, or total loans. The prevailing practice is to limit these loans to 50 % of the capital, or capital and surplus. A few place the limit at from 15 % to 40 % of the assets; and some at 20 % of the loans. State laws define the character of these loans as to the location of the property, the character of the lien, or the proportion which the value of the real estate must bear to the amount of the loan. Holdings of real estate are limited to a five-year duration following a foreclosure sale.

These real-estate loans are a larger proportion of the total loans in the smaller towns and cities. And "notwithstanding the disadvantages of real estate as a convertible asset, the power to loan on the security of real estate is a valuable one to many of the state banks." On April 28, 1909, 20.6 % of the total loans and discounts of state banks were based upon security of this character. In so far as the deposits of state banks are time deposits this form of lending cannot be troublesome, though it is not suitable for active commercial banks in large centers of population.

The third great difference between national and state banks is found in the reserve requirements. Here also the state and territorial laws are the more lenient. At present (1910) in ten states[1] no reserve whatever is required for incorporated banks. In fourteen states[2] a reserve is required only against demand

[1] Arkansas, Indiana, Illinois, Mississippi, New Hampshire, New Mexico, South Carolina, Tennessee, Virginia, Wyoming.

[2] Alabama, Connecticut, Delaware, Georgia, Louisiana, Maryland, Minnesota, Missouri, New Jersey, New York, Idaho, Rhode Island, Washington, West Virginia.

deposits. The amount ranges from 10 % to 25 %, although 15 % is commonly required. In six other states[1] a lower reserve is required against time deposits than against demand deposits. This ranges from 4 % to 15 % for time deposits as against 15 % to 25 % for demand deposits. In sharp contrast, the national-bank act requires from 15 % to 25% of all deposits. This example has been followed in but thirteen states.

Not only in regard to the amount of reserve, but also as to its form, do state and national laws differ. The national banks are allowed to redeposit of their reserves as follows: Country banks, three fifths; reserve-city banks, one half; and central-reserve-city banks, nothing. All states permit balances in other banks to be counted as a part of the reserve. The amount of re-deposit so authorized varies from one-half to three-fourths. A few states distinguish between the amount to be re-deposited of the reserve against demand and time deposits. As high as eleven-fifteenths of the latter are so re-deposited.

In seven states "the banks determine for themselves what part of their reserves shall be cash in bank and what part shall be in the form of bank balances". In four states, bonds may be counted in the reserve[2]. In the choice of depositories the state banks are practically unrestricted. In but five states are distinctions made between the reserves required of ordinary banks and of reserve agents.

The prohibition of branches except to state banks having them previous to conversion is a characteristic feature of the national system. General acts authorize branches in nine states[3] and special acts have created them in two states[4]. Where authorized they are compelled to provide a separate capital for each branch and to obtain the consent of state officials for its establishment. In some of the states which do not permit the

[1] California, 4 %; Pennsylvania, $7\frac{1}{2}$ %; Kentucky, Oregon, Utah, 10 %; Texas, 15 %.

[2] The part of reserve that may be so held: $\frac{3}{5}$, Georgia; $\frac{11}{15}$, Connecticut; $\frac{3}{5}$, Florida; $\frac{1}{3}$, Pennsylvania.

[3] California, Delaware, Florida, Georgia, New York, Oregon, Rhode Island, Virginia, Washington. Also permissible in South Carolina.

[4] Maryland and North Carolina.

organization of branches, systems of allied banks have been built up either by direct stock ownership of one by another or by a community of interest among the shareholders of the different banks.

Effective legislation is aimed at the prohibition or restriction of the former method in sixteen states; while the latter method is almost beyond reach of the law. However, the number of branches in the United States does not exceed a few hundred, and many of the so-called "chains" do not possess much banking power. The great mass are independent banks.

The trust companies present some different features from the state banks. While it is true that the laws concerning state banks and trust companies are tending to become assimilated, certain important differences remain.

The trust companies are distinctly authorized to accept trusts and to do a safe-deposit business in addition to general banking. The majority of the states which provide for a specified capital require a minimum of $100,000 or over.[1] There is a tendency in recent legislation to lower this amount. "In every state except one the smallest permissible capital is as large for trust companies as for state banks, if not larger; in six states it is the same; in all the others it is larger."

Subscribed but unpaid capitals are permitted in fourteen states, but the majority require full payment. Of the latter over half require full payment as a condition for beginning business. The payment is required by all but nineteen states to be "in cash" or "in lawful money." The accumulation of a surplus is not required in so many states for trust companies as for banks.

With respect to loans, trust companies are less restricted than state banks. Nine states[2] which limit state banks do not limit trust companies.

[1] Seven states require over $100,000; thirteen require $100,000; three require $50,000; nine require $25,000; and but five require less than $25,000. These latter are Iowa, North Carolina, Nevada, Virginia and Wyoming; they contain but fifteen trust companies.

[2] Kansas, Michigan, Minnesota, Missouri, Montana, Oklahoma, New Jersey, Nebraska and Wisconsin.

The reserve requirements for trust companies are much less than for state banks. Six states and territories require no reserve whatever.[1] Two states[2] require reserves of trust companies but not of banks. In the remaining states, trust companies are favored by being allowed to count bonds as a part of the reserve; or to hold lower reserves against time deposits. Recent legislation shows a tendency to increase these reserves or to diminish the proportion of bonds held in them. This leniency has probably been due to the different character of trust-company deposits. They are largely inactive[3] and contain but a small percentage of bank deposits[4] which are subject to sudden or large withdrawals.

From the foregoing survey the offer that must be made to induce a voluntary conversion of state banks and trust companies is quite clear. The following changes in national-bank privileges must be authorized to compete with the state commercial banks: a capital of $10,000 or more; loans upon real estate to some percentage of capital, assets, loans, or time deposits; and to compete with trust companies: the acceptance of trusts, a capital of $25,000 and up, probably determined according to population; real-estate loans to a large percentage of time deposits; and a small percentage of quickly convertible assets such as bonds for a secondary reserve reinforcing a primary reserve of a relatively small amount.

With profit-taking advantages thus equalized in the two systems, the superior credit which comes from national organization and other incidental advantages would probably bring conversion. The superior quality of national examination, supervision, uniformity and affiliation would insure greater safety, fewer failures and better facilities than under the methods in

[1] Colorado, Iowa, Minnesota, Utah, Vermont, District of Columbia. The first four require reserves of state banks.

[2] Wyoming and New Mexico.

[3] Clearings relative to deposits in Boston: Trust companies, 4 %; national banks, 10 %. Clearings in New York: trust companies to nationals, in ratio 7: 100.

[4] The percentage of deposits due to other banks: Boston (Dec. 3, 1907) trust companies, 2.3 %; national banks, 32.6 %. New York (1907) trust companies, 12 %; national banks, 45 %.—Barnett. Chicago (1910) trust companies, 9.95 %; national banks, 50.7 %.—Babcock, Rushton & Co., Chicago, compilation.

vogue. Lowering of the national ideal is not advocated; but the recognition of different kinds of business and different local conditions is reason enough to suggest an elaboration of the types of banks nationally organized and nationally controlled.

Not the least advantage to be derived from this spontaneous conversion to the national system would be the power thus accruing to prescribe requirements looking toward a national organization of our credit fabric; and a weaving of its parts with substantial, numerous and far-reaching threads. This conversion to the national system need not take the form of re-incorporation. To provide for the organization by national banks of separate departments having these characteristics, would bring about a considerable transfer of the business of state to national banks.

II

What expedients have the states discovered which will be useful if incorporated in the national banking laws? In the development of state banking, the national-bank act has been in many respects a standard to which the states have turned for suggestion. However, experience and invention have brought variations that are worthy of consideration, all aimed to give greater security to depositors. The immediate interest of the depositor has been cared for by laws governing reserves; and his ultimate welfare has been protected by laws fixing capital, surplus, and shareholders' liability.

The majority of states have found that a smaller reserve is needed against time deposits than against demand deposits. For a more scientific system, national banks should hold larger reserves against demand deposits and smaller reserves against time deposits than at present. This would induce bankers to urge the use of time deposits for "dead" accounts. The field of active accounts would then be narrowed and better management would result.

Some states [1] recognize in law the practice of good bankers in maintaining a secondary reserve of convertible assets such as

[1] Connecticut, Florida, Georgia, Kansas, Ohio, Oklahoma, Pennsylvania.

bonds. No one advocates the holding of bonds in the primary reserve; but if some percentage of the demand deposits of country banks were required to be held in assets (such as securities, or commercial paper) approved by their reserve agents and discountable with reserve agents at will (in exchange for bank notes, deposit credit, or legal tender money) it would in times of ordinary local disturbances be of great value; and in times of panic, with a proper organization of national credit, it would be indispensable.

For the ultimate redemption of its obligations the stockholders of a state bank are ordinarily required to establish a guaranty fund consisting of "capital" originally invested, a "surplus" appropriated from profits, and a promise to pay more if needed, called "double liability of shareholders." The amount of capital required is rated usually according to the population of the place where the bank is located. To this has been added an improvement in the form of a required ratio between the volume of business and this guaranty fund.[1] The adoption of some reasonable ratio[2] would equalize the risks of depositors in different banks in so far as legislation can do so without altering the human nature of those who lend bank funds.

While the national bank act requires but 50% of the capital to be paid in before opening, and the balance within five months, the states have shown a tendency, especially in recent legislation, to shorten this period. In fourteen states the entire capital must be paid in before opening.[3] Likewise, a large number

[1] *State banks*—Ratio of deposits to capital and surplus: 20: 1, Iowa (savings); 15: 1, South Dakota; 10: 1, Kansas, California, Oklahoma, Rhode Island. Ratio of deposits to capital: 10: 1, Texas (for banks of $100,000 or over); 5: 1, Texas (banks of $10,000 capital). Ratio of loans to capital and surplus: 2: 1, Massachusetts (obsolete law); 8: 1, Nevada and Nebraska. *Trust companies*—Ratio of deposits to capital and surplus: 10: 1, Rhode Island, Maryland, Illinois. Ratio of loans to capital and surplus: 10: 1, Illinois, Maryland, South Dakota; 8: 1, Nevada.

[2] June 30, 1910: Chicago banks; actual ratio deposits to capital (without surplus): national banks, 2: 1 – 20½: 1; average, 10.84: 1; state banks and trust companies, 2: 1 – 28: 1; average, 10.67: 1.—Babcock, Rushton & Company, compilation.

[3] Illinois, Iowa, Kansas, Minnesota, Montana, Nebraska, New Jersey, New York, Oklahoma, South Dakota, Rhode Island, Texas, Vermont, Wisconsin.

of states have shorter allowances of time for the restoration of impaired capital. The national banks are granted three months, whereas most of the states allow but thirty to sixty days of delinquency.

"The imposition of the statutory liability on the stockholders of state banks and trust companies has not proved of great service as a protection to bank creditors against loss." The difficulty experienced in endeavoring to prevent or prove the transfer of stock with the intention of evading liability is almost insurmountable. This weakness has been overcome to some extent by extending the period of liability beyond the time of transfer. This extension varies from six months to two years in the several states.[1]

Another advance will be made when national and other banks are denied their present power[2] of loaning on the security of other bank stocks. At least these restrictions should be applied to all stock carrying double liability. This prohibition would give more value to the liability of shareholders and effectively prevent the formation of "chains" of banks except by the strongest of financial interests.

Finding "statutory liability" insufficient, many states have required banks to set aside a surplus fund from net profits. The national-bank act requires 10% annually until the aggregate is equivalent to 20% of the capital. Recent state legislation has improved upon this by requiring a more rapid rate of accumulation and a larger fund.[3] A surplus invested in the general assets is ordinarily superior to a right of legal action.

The vital part determining the safety of any banking system is the management of the loans. Loans given to directors and officers are not in any way proscribed by the national-bank act.[4] About one-half of the states have provisions aiming to guard against evils in such lending. Either two-thirds of the directors

[1] Six months: Wisconsin and Montana. One year: Minnesota, New Mexico, North Dakota, Texas, South Dakota. Two years: Kentucky.

[2] See National Bank *v.* Case, 96 U. S., 628.

[3] 20% of net earnings in California, Indiana, Minnesota, Nebraska, and 10% of net earnings in Kansas, Oklahoma and Texas; until surplus equals 50% of capital.

[4] *Pratt's Digest*, 1908, p. 19.

must approve, or security must be deposited, or the amount must be less than that allowed other kinds of borrowers. Loans on the bank's own stock are forbidden in thirty states and territories; and purchases of the same are forbidden in thirty-five states and territories. National banks may hold their own stock as security for loans "previously contracted in good faith".[1] This is true of all state banks.

Provision for the publishing of unclaimed deposits in national banks would not be improper. Nineteen states now have such requirements. If finally unclaimed they should escheat to the state.

As a remedy for losses transcending the guaranty fund of capital, surplus, and shareholders' liability, five states[2] have authorized "a depositors' guaranty system". Since it is of comparatively recent origin and not widespread in application it does not recommend itself for adoption.

[1] Revised Statutes, U. S., Sec. 5201.

[2] Voluntary in Kansas and South Dakota; compulsory in Nebraska, Oklahoma and Texas.

THE NEED OF AN EXPANSION JOINT IN OUR MONETARY SYSTEM[1]

ROBERT D. KENT

President of the Merchants' National Bank of Passaic, N. J.

THE expansion joint is a well-known device in mechanics. If you should walk over the Brooklyn bridge you would see a place where steel plates slide over each other in the roadway, and if you should ask the purpose they serve you will be informed that it is an "expansion joint," to allow for the effect of heat and cold in expanding and contracting the metal of which the bridge is built. Your watch has in it a device known as the "balance wheel" which is an expansion joint to enable it to do its work correctly, regardless of the expansion by heat or the contraction by cold. Note that while the name is "expansion joint" the thing really is an expansion and contraction joint. We experience numerous ill effects because we have no expansion joint in connection with our currency or because our currency lacks elasticity.

Last year the value of our principal crops amounted to 4,652 million dollars. Practically all of this is harvested and marketed in the fall; hence we require great amounts of money to "move the crops." We hear that term very frequently but I do not think many of us realize what is implied by it. Several years ago I was in Nebraska, and with some other men was starting to drive out into the country from a town on the railroad. One of our party who lived in the town called our attention to a man driving into the place with several hogs in his wagon. He said, "That man will sell his hogs and get twenty-five or thirty dollars for them, and will spend five or six dollars for groceries and supplies, and take the balance of the money back into the country to his home ten or fifteen miles from the railroad. The next week he will repeat the operation. The money he takes

[1] An address before the Passaic Board of Trade.

back with him each week will go to make up a fund which will last him for his family expenses until the following spring." I then woke up to the fact that several million farmers were doing the same thing all over our broad land, and I had a larger conception of what it meant to furnish money to move the crops—the cereal and other products of the west and the cotton of the south.

We can have no accurate statement of the amount of money needed each fall to move the crops, nor just how long it will be before it gets back again to the money centers; but a fair estimate would be that 200 or 300 million dollars is required each fall for this purpose and that in January, February and March nearly all of the crop-moving money will be restored to ordinary circulation. Where is the large amount of money needed each year obtained, and at what cost? The banks at the money centers carry little cash above their legal reserve. They call in demand loans to the disturbance of the security market. They refuse much-needed accommodation to merchants and manufacturers to whom they would willingly lend at other seasons of the year. They also collect all the maturing time paper which they have purchased from commercial-paper dealers from April to July. Financial strain is caused on every hand. If by such efforts in our own country money enough is not obtained, we also disturb the money centers of Europe.

So much for the inability of our currency to expand when funds are urgently needed; now a few words on the results of its inability to contract when money is unduly abundant. In the spring and early summer of 1909 when the crop-moving money had all been returned to the money centers, there was a considerable time when call money was plentiful at from 1½ to 2 per cent. In the early spring a member of a stock exchange house in New York remarked to me, "In two or three weeks the banks will be crazy with money"—his idea being that almost any rate would get it, and that the banks would not be severely critical as to the character of the collateral required. For a period of two or three months a little later than this, the dealers in commercial paper were going about among the business houses of New York, and probably elsewhere, offering

amounts of from $25,000 to $100,000 or more on single-name paper at 3½ per cent. It needs but little imagination to see how this condition leads to undue inflation of security prices, to the flotation of unwise ventures, and to the undue use of credit by the commercial and manufacturing community.

It is not entirely correct to say that we have no expansion joint in our currency system. Clearing-house certificates serve the purpose to a limited extent, but we never use them until the case is so desperate that a panic is upon us. Even when issued they fall short of serving us to the best advantage, because they do not go from city to city, and because they are not issued in small denominations for wages and small transactions, except as they were so used in a few cities in 1907 in direct violation of law. The present emergency currency law is an attempt to furnish us with elasticity, but it is not adapted to our comparatively moderate extra needs each fall. It is more for the purpose of helping us to recover after we have been seriously hurt. A few changes in the law would, I feel sure, make it extremely useful.

One very serious result of our present system is, that on the approach of bad times every wisely-managed bank begins to accumulate cash by contracting its loans in order to be prepared for anticipated stringency. Thus when the business community is in special need of accommodation the banks lend less than usual. As a result conditions are made worse. The banks are not to be blamed for such action. Indeed it is necessary for the protection of themselves and their depositors, as they have no central banking system to which they can apply later on for relief when help may be urgently needed. When undue contraction results from previous expansion, merchants with falling sales have to sacrifice stocks to realize funds to meet obligations, and the weaker ones frequently fail. Manufacturers curtail production and discharge hands. These employes, unless thrifty and possessed of means to tide them over, are reduced to poverty. Their purchasing power is cut off or diminished, and in consequence retail merchants find their business seriously lessened. Many men who have made small payments on the purchase of a house are forced through failure in business or

loss of employment to relinquish their investments, and lose what they have put in. All classes of society suffer.

A plan might be put into effect which, while it does not cover all the ground, would do much to check the evils of our over-supply of money at one season of the year, and our shortage at the other. Until we have a central bank or some other system to answer the same purpose, it would greatly help the situation, and indeed would be beneficial even after a more comprehensive plan was put into operation. This plan is so simple that it could be put into effect by four or five gentlemen in New York at a fifteen-minute conference; and yet I am confident that it would be greatly helpful.

The plan is that not less than four or five of the leading New York banks unite to discourage the accumulation of money in New York from about March to September, by lowering the rate of interest they will pay on the balances of out-of-town banks, to the extent of one-half of one per cent or more if necessary, and that from September to February they encourage the shipment of money to New York by raising the rate correspondingly. If four or five of the larger banks in New York should adopt the policy of changing the interest rate as suggested, the others would be forced to follow their example. This in turn would compel the banks of Chicago and St. Louis, the other central-reserve cities, to take similar action. The banks in the ordinary reserve cities—Philadelphia, Boston, Albany, Pittsburg, Cincinnati, and the rest—would feel the force of the action, and would be compelled to govern their action accordingly.

The average rate for call money during November 1905 was 8⅜ per cent, and during December it was 21½ per cent; in November 1906 it was 10¼ per cent, and in December 15¼ per cent; in October 1907 it was 20½ per cent, in November 16 per cent and in December over 12 per cent. As a contrast to these conditions, there was a period of six months or more in the spring and summer of 1908 when the average rate was about 1½ per cent and for six months in 1909 when it was about two per cent. Under these widely-varying conditions in the money market the New York banks make practically no change in the

rate of interest which they pay on bank balances. Not having lowered the rate when money was a drug in the market, they are not in a position to raise the rate in order to attract funds when they are greatly needed. How different is this condition from that in France, where the Bank of France, by the simple expedient of varying its rates slightly, has conferred incalculable benefit upon French trade in all its forms.

I believe that the policy I advocate would pay each individual bank in New York better than the present method, and the interest received by the out-of-town banks would average about the same as at present; but even if there should be some slight loss in either direction, it would be compensated many times over by the advantage of doing business on a more stable basis. It is sometimes said that strong financial interests desire the continuance of the present system in order that they may make large profits out of the violent changes in the money market. Of this I have no proof, but I will say that if strong financial operators desire to do business on such a basis, the present currency laws and the practise of the New York banks aid them greatly in accomplishing their purpose.

A few years ago we heard much on the subject of New York becoming the money center of the world. She cannot look forward to that distinction until our currency laws are perfected, and until her banks are prepared to do business on broad lines in harmony with the laws of supply and demand, thus doing their share in steadying the money market of the world. It is imperative for the best results in business that legislation be enacted to eliminate the evils incident to our present rigid supply of currency and credit. Business men who realize the hazard of commercial operations as now conducted should urge the remedy—a central bank under strict governmental control. Meanwhile such an interest-regulating coalition as I have suggested would provide immediate relief and would likewise constitute a valuable permanent feature of our machinery of monetary regulation.

A UNITED RESERVE BANK OF THE UNITED STATES [1]

PAUL M. WARBURG

THE summary of a recent investigation undertaken by the *Banking Law Journal* discloses the fact that out of 5613 answers given by national and state bankers to the question: "Do you favor a central bank if not controlled by 'Wall Street' or any monopolistic interest?" $59\frac{1}{3}$ per cent were affirmative, 7 per cent were undecided, and $33\frac{2}{3}$ per cent were negative. Almost all the negative answers, as far as published, are based upon the argument that a central bank, if established, could not permanently be kept out of political or "Wall Street" control. Between the opponents and the champions of a central bank plan there is complete unanimity of opinion that such a system should be tried in our country only if the dangers of "Wall Street" or political control can be absolutely averted.

The main question at issue is this: Is it possible to evolve a plan which, while containing these elements of safety, will at the same time be completely practicable?

It is our belief that no progress can be made by meeting the sweeping assertions of those opposed to a central-bank plan by equally sweeping replies, but that advance is possible only by outlining a tangible plan for such a bank. This, on the one hand, will give to those not yet familiar with the actual working of such an institution an opportunity for study, and on the other hand it will force the critics of such a plan, it is hoped, to offer specific and well-defined objections which may lead to some definite results.

It should be stated at the outset that the plan here submitted does not suggest a central bank such as exists in various European countries. It is a scheme based upon conditions peculiar to our country and our form of government. It recognizes the vast territorial area of the United States, the diversity and dissimilarity of interests, and even the traditional, sectional and

[1] A paper first presented on March 23, 1910, before the Finance Forum of the Young Men's Christian Association of New York.

partisan prejudices of the people. In consequence of this, many features which are contained in European plans and which figured, to some extent, in the operations of the first and second banks of the United States have been omitted, while certain features foreign to European organizations have been incorporated. All the underlying principles of safe and intelligent modern banking, however,—principles which must be adopted if we are to obtain a banking system adequate to our present and prospective needs—have been observed and are embraced in the plan. This essay, while advocating the central-bank idea, submits a much modified system, which we should like to designate the "United Reserve Bank of the United States". The plan does not pretend to be final or complete in all its details; its purpose is to indicate the fundamental principles upon which the solution of the problem depends and to point out one method of solution.

The strongest arguments made against the plan of a central bank in the United States are those advocated by Mr. Victor Morawetz and by Professor O. M. W. Sprague. We have made free to answer these two critics in the second and third parts of this essay, and in endeavoring to refute their arguments have attempted at the same time to meet the principal objections of other critics whose writings have come to our notice.

I

Let us assume that a United Reserve Bank of the United States be established in Washington with a capital of $100,000,000 fully paid. Let us assume the United States divided into twenty zones of operation, similar to the currency-association districts now proposed by the Aldrich-Vreeland measure, each zone of operation to contain a voluntary association of banks grouped around a financial and commercial center, in accordance with a plan to be worked out in detail. To form the operating associations, which we shall call banking associations, the banks within each zone should have the privilege of appointing from their own number a board of directors, who in turn may appoint a president or managing director of the association. Certain mistakes which crept into the Aldrich-

Vreeland bill must be avoided. The measure should be drafted so as to permit a bank to withdraw from the association at will; to restrict the obligations of each bank to certain transactions, in each case carefully examined and approved by the associations; and also to enable the associations, with the approval of the secretary of the treasury, to group themselves into subdivisions. One might simplify the formation of these associations by making them stock companies, each bank within a zone of operations having the privilege of subscribing its *pro rata* share, according to its capital and surplus.

In order that the board of directors of the United Reserve Bank in Washington may be thoroughly representative of the various interests and districts of the country, that it may be non-political, non-partisan, and non-sectional, a certain number of the directors, say three-fifths, should be appointed by the banking associations; a further number, perhaps one-fifth, should be elected by the stockholders: while the secretary of the treasury, the comptroller of the currency, the treasurer of the United States and others to be nominated by them, should fill out the remainder of the board. It might be advisable to provide that no director, excepting the *ex officio* members, should serve more than a certain number of years in succession.

In order that commercial interests be adequately represented, provision might be made that the members appointed by the stockholders should not be bank or trust-company presidents, and that these members should be elected preferably from the class of merchants and manufacturers. One would then have a mixed board, of whom three-fifths would be bankers, appointed by the banking associations, while one-fifth would be chosen from the commercial classes by vote of the stockholders, and one-fifth would be *ex officio* government members and the additional members appointed by them.

This board should have the right to elect one or two governors of the United Reserve Bank, who would be salaried officers appointed, like other bank presidents, for an indefinite time, irrespective of political considerations, and remaining in office as long as they render satisfactory service.

The share capital of the United Reserve Bank could be divided

among the banks of the country under a fair plan of apportionment, or the stock could be sold to the public. The dividends on the stock should be limited to, let us say, four per cent. Any profit in excess of this should go to the government. A provision that no one stockholder be allowed to have more than a certain number of votes should be inserted.

The United Reserve Bank should be authorized to perform the following functions:

(1) To accept deposits from the government of the United States and from members of the banking associations only. No interest should be paid on such deposits, but they might be counted as cash by the banks and trust companies making them.

(2) To buy from members of the banking associations, at a discount rate to be published from time to time, commercial paper having not more than twenty-eight days to run, and issued at least thirty days before the date of rediscounting. The aggregate amount which it might buy from each member should be restricted to a certain proportion of the unimpaired capital and surplus of such member, and the aggregate amount issued by one issuer of commercial paper to a member of the banking association and rediscounted with the United Reserve Bank, should also be limited to a certain proportion of such unimpaired capital and surplus.

(3) To buy from member banks, at a discount rate to be published from time to time, commercial paper having more than twenty-eight days to run, but in any case less than ninety days The aggregate amount to be rediscounted by the United Reserve Bank from each member and the aggregate amount admissible from individual makers of notes should be restricted as under (2). Such paper, however, could be discounted by the United Reserve Bank only with the endorsement or guaranty of the banking association to which the member belonged.[1]

[1] In consideration of such guaranty or endorsement, the banking association would receive from the member handing in paper for re-discount a certain remuneration, let us say ¼ or ½ of one per cent in the interest rate. The banking associations would, of course, like the clearing houses when clearing-house certificates are issued, have the right to reject any paper which they did not deem it safe or proper to guarantee or endorse.

(4) To buy, at a discount rate to be published from time to time, paper having no more than ninety days to run, drawn by a commercial firm on, and accepted by, a bank, trust company or banker, and endorsed by a bank, trust company or banker. One of these signatures should be that of a member of the banking association. Limits as to amounts of acceptances admissible from time to time for discount with the United Reserve Bank should be fixed by the central board.[1]

(5) To buy bills on England, France, Germany (and such other countries as may be decided upon), such bills to have a maximum maturity of ninety days, to bear one commercial signature, to be drawn on and accepted by a well-known foreign banking house and endorsed by a member of a banking association or a banker in good standing. The United Reserve Bank should have power to resell all bills that it might buy and to do all things necessary for their collection.

(6) To deal in bullion, and to contract for advances of bullion, giving security therefor and paying interest on such advances.

(7) To buy and sell bonds and treasury notes of the United States.

(8) To issue circulating notes, payable on demand in gold; such notes to be secured by bills, bought by the bank under provisions (2) to (5), and by gold to the amount of at least 33⅓ per cent of the aggregate amount of outstanding notes.

(9) To establish branches in places where there are head offices of banking associations. Such branches under the direction of the central board of the United Reserve Bank, might do the same business as the head office. Each branch would have a local board, chosen by the board of managers of the local banking association, to which board might be added some members of the commercial classes appointed by the head office in Washington. This local board would supervise the business of the branch bank, and elect its salaried president, subject to the approval of the central board in Washington.

[1] It might be advisable to provide that in case of emergency the central board, with the approval of the secretary of the treasury and the President of the United States, might increase the limits fixed under (2), (3) and (4).

(10) To request banks or trust companies desirous of making use of the services of the United Reserve Bank, to keep with its branches a cash balance commensurate with the amount of business done by them. The United Reserve Bank should have the right to transfer sums of money from the account of one member to that of another upon request.

(11) To join the clearing-house associations of the various cities where the bank and its branches are located.

Let us now consider the plan, as above outlined, from the following points of view: First, would it be safe? Second, would it be effective? Third, would the vested interests of the banks have reason to oppose or favor it, and can the general prejudice existing against any such plan be overcome?

The chief criticism that has been raised against a central bank is that it is subject to the danger of control either by politics or by Wall Street finance. Would this danger exist under our plan? Could anybody acquire control? Nobody could do so if a provision were made that the stock should be divided among the 18,000 banks of the United States.[1] But even without such provision there would be no danger on this score. A man or a group of men acquiring the whole capital stock of the United Reserve Bank would, after all, acquire the right to appoint only a few members of the board, who would be in a hopeless minority against the combined members of the banking associations of the whole country and those representing the government.

But furthermore it is evident, with the restrictions placed upon the United Reserve Bank as to the transactions in which it might engage, and with the restrictions as to the earning power of the stock, that the control of the United Reserve Bank by one individual or a group would not offer any attraction.

As an investment it would not pay, because any earnings in excess of four per cent would go to the government, and as for securing help for speculative ventures or aggrandizement of

[1] The author is fully aware that there are only about 6,500 national banks now, but it is to be expected that under any new plan all national banks would become state banks or all state banks national banks. It would, however, lead too far to go into this question here.

power, this aim could not be achieved by the control of a bank restricted in its dealings to the purchase of short paper from member banks, and of three-months paper which could be acquired only from the banking associations. Taking into consideration all these safeguards, namely, the method of appointing the board, the restriction of income on the stock, and the limitation of transactions permitted, it is absolutely safe to say that under such a system any fear of undue financial or political control may be dismissed once for all.

Secondly, would the plan be effective? It is easy to devise a plan that would be ultra-safe, and not very hard to create one that would be effective, but to combine safety and effectiveness is difficult. Let us first determine what is the main object of a central bank, and then investigate whether the plan above outlined would fulfill this purpose.

A central bank acts as a central reserve of a nation. Its first duty is to see that a proper proportion is maintained between actual cash reserve and all demand obligations of the nation which are payable in cash at the option of the payee, but of which the majority are habitually paid by exchange of credits. Its duty in this respect is two-fold: on the one hand, to protect and to strengthen the country's holdings of gold, and on the other hand to establish and maintain a perfect system of credit, enabling the general banks to transform cash credits into actual cash with such absolute ease and certainty that the use of the cash credit, instead of the actual cash, will not cease, no matter what may happen. In other words, there must not remain the faintest possibility of hoarding during a crisis, or the system will fail. In order to assure this, cash credit must not only be as good as cash, it must be better than cash! The carrying of cash entails a risk of actual loss as well as of loss of interest; a cash credit is free from this first-named evil and, in addition, investments which can be quickly turned into cash credits bear interest. The general tendency of civilized people in a well-organized country must therefore be to free themselves as rapidly as possible from cash and to transform it into the safer and more economical cash credit or into assets which can be quickly transformed into cash credits. Every idle token of

money must, therefore, under a modern system return without delay into the central reservoir, where it must be unreservedly available for every legitimate demand for cash. There must never arise any doubt that a legitimate demand for cash will be met promptly and that legitimate quick assets can be turned into cash credits.

If quick assets can be promptly and reliably turned into cash credits, and if cash credits can be turned into cash at will, then it is certain that all such credits never will be turned into cash at the same time, because nobody has any use for so much cash and therefore he will not ask for it, as long as he is sure that he can get it.[1] This is the only basis on which our modern system of immense demand gold obligations, built up on a comparatively small amount of cash, is safe.

Let us use an illustration for this fundamental point:[2]

If after a prolonged drought a thunderstorm threatens, what would be the consequence if the wise mayor of an Oriental town should attempt to meet the danger of fire by distributing the available water, one pailful to each house owner? When the lightning strikes, the unfortunate householder will in vain fight the fire with his one pailful of water, while the other citizens will all frantically hold on to their own little supply, their only defense in the face of danger. The fire will spread and resistance will be impossible. If, however, instead of uselessly dividing the water, it had remained concentrated in one reservoir with an adequate system of pipes to direct it where it was wanted for effective use, the town would have been safe.

Ridiculous as these conditions may appear, the parallel with our own financial organization is evident. Our reserves of cash are entirely disconnected; they are insufficient for even a single institution in times of serious stress, and instead of being a protection they are a dangerous weakness, because the consciousness of insufficient protection causes one bank to try to draw on

[1] This applies only to the internal drain. We shall deal later with the demand for gold that might arise from without.

[2] This illustration is taken from the writer's pamphlet, *The Discount System in Europe*, published by the National Monetary Commission. The author begs leave to refer his readers to this article, of which the present essay forms the second part.

the reserves of others, and the very moment these mutual attacks begin, panic inevitably follows.

Our true conditions are, as a matter of fact, even more preposterous than those in the Oriental town, by reason of our law prescribing that a certain proportion of the deposits must be kept in cash,—a law which must be observed if a bank wants to preserve its credit. Not only is the water uselessly distributed into 18,000 pails, but we are permitted to use the water only in small quantities in proportion as the house burns down. If the structure consists of four floors, we are practically forced to keep one-fourth of the contents of our pail for each floor. We must not try to extinguish the fire by using the water freely in the beginning; that would not be fair to the other floors. Let the fire spread and give each part of the house, as it burns, its equal and insufficient proportion of water.

As long as the owners of houses threatened with fire know that the central water supply is well in hand, with one central power, available wherever danger may arise, everybody feels safe and is not frightened by the thought that if all the houses should burn at the same time there would not be enough water to go around. Though there may not be enough water for the last house that might burn down, even the owner of that last house would not ask that some water be kept back for him, because he realizes that unless the fire be stopped before it reaches him, his own little supply of water will not help him.

If, however, a central system does not exist, everybody will hoard water, trying to steal it from his neighbor or from the community by tapping some source in order to create a supply of his own. He will lessen thereby the full supply that ought to be led into the central reservoir, without protecting himself adequately in time of danger.

The main function and object of a central bank is to make every dollar which lies idle return to the central money reservoir to make it available to the fullest extent, wherever and whenever it can do good legitimately, and to provide a system of mains, by which it can be conveyed quickly to any point of danger.

Note issue is not a fundamental, but only a side question, and

it is very important to grasp this fully. If the British government should issue a government loan and use the proceeds to pay into the Bank of England in gold £18,400,000, thereby paying off its present indebtedness to the bank and providing a gold cover for the uncovered portion of the note issue of the bank, the latter could pay off every one of its sterling notes in gold. If this were done, the only change would be a change in pocketbooks, to enable people to carry gold instead of notes. The central-bank system of England would go on absolutely undisturbed. With or without the note-issuing power, the Bank of England would remain the central reservoir of gold. It could continue to protect England's gold holdings and to maintain the proper proportion between the country's demand obligations and actual cash. It would continue to guarantee the prompt transformation of cash credit into cash and of quick assets into cash credits.

This is possible only through the discount system. The banks know that they can, in case of need, rediscount their legitimate bills with the central bank. The central bank, on the other hand, having a large investment in bills of short maturity, can, by increasing its discount rate, withdraw from new investments and thereby strengthen its reserve. Incidentally, by increasing the interest rate of the country, it attracts foreign money, wards off gold exports, and by throwing part of the burden on the general banks brings about a general contraction of business.

Money flows where it can draw good interest in safety. Where credit is firmly established and financial organization sound, money flows easily from one city or country to another, for a difference in interest of a fraction of one per cent. It is humiliating to realize how large a margin in interest rates we must offer to attract money, as compared with our European competitors. This question and the working of the discount system, of which the central-bank system is a part, have been dealt with fully in my previous paper, so that I need not dwell on them here.

Elastic note issue, that is, the power of a central bank to issue notes not fully covered by bullion, is an auxiliary measure.

The central-bank system becomes more pliable and safer by this addition because, the lines being less rigid, the fear of reaching the end of the tether is not so great; and, furthermore, since the result to be reached is not exclusively dependent upon the discount rate, the latter need not be changed so often and so drastically as with an inelastic system.

To return to our metaphor: note issue represents an auxiliary reservoir. Where it does not exist, the men in charge of the central reservoir have to advance the price for water so as to discourage extravagant use whenever the available supply falls below a safe margin. Unsecured note issue enables the managers to use this auxiliary supply, which renders it possible often to provide for the needs without increasing the price for the water, where the increased demand is normal and only temporary.

To decide when to supply water freely, when to warn the consumer to save, and when to limit the supply without ever refusing to comply with legitimate demands, is the duty of the central bank. No automaton—no tax or fixed regulation—can perform it, but the best judgment of the best experts must indicate the policy to be pursued from time to time. In addition, it must be the exclusive care and responsibility of one institution, chartered and constructed for the single purpose of maintaining the proper proportion between demand and supply.

With us the general banks, which are the consumers and represent the consumers, are at the same time the regulators. Where everybody regulates himself, there is anarchy and chaos in times of stress. Money making and the maintenance of a safe proportion between cash and cash obligations are at times distinctly opposed functions, and the performance of these functions should lie in entirely separated bodies. The general banks must remain money-making concerns, administered with the full responsibility of being able to meet all possible cash demands by available cash credit. To guarantee that every cash credit can be met, if desired, by actual cash payment, and to avoid the possibility of such general demand for cash—this is the function of the central bank.

Let us consider whether these aims of a central bank can be

safely and effectively reached under the system above outlined. The great difficulty in the United States is the complete lack of modern bills of exchange, freely endorsed by the banks and passed on from hand to hand, as in Europe. With us there still prevails the old single-name promissory note, which, under our present system, is practically unsalable once it has entered the bank, and which therefore immobilizes our bank holdings.

To permit the banks to rediscount these promissory notes with a central bank would be the easiest way, but the criticism may be justly raised, that in doing so we should open the door to abuse. Hence the inclusion, in a scheme previously outlined by me, of the banking associations, which, having to guarantee the paper before it enters the United Reserve Bank, would carefully examine and sift it. The interjection of the banking associations would make the paper safe beyond peradventure and, if nothing else could be found or agreed upon, this system might well be adopted for the present.

The criticism, however, has been raised against this method, that it would be fairly clumsy and that in normal times the banks would try to do without it. Therefore it would remain only an emergency system, out of touch with the market in normal times. To meet this difficulty, it is proposed in this plan to empower the United Reserve Bank to take bills with not more than twenty-eight days to run directly from members, without the guaranty of the banking associations.

This thought developed from the following observation: Upon examining the report of the Reichsbank one finds that on December 31, 1908, it held in German bills M. 1,032,000,000; of which 44 per cent were payable within 15 days, 17.4 per cent within 16 to 30 days, 24.8 per cent within 31 to 60 days, and 13.9 per cent within 61 to 90 days. This brings out the surprising fact that the maturity of 61.4 per cent of all the bills held by the German Reichsbank was of 1 to 30 days. The average duration of all bills held by the Reichsbank is thirty-four days. A similar proportion could be shown by the Banque de France, where the average duration of all bills held is even less, namely, twenty-four days.

How is this to be explained? It means that if, when making

up its daily balance sheet, a German or French bank finds that on balance it needs money, it will send to the Reichsbank or Banque de France for discount its bills falling due the next following days. These central banks have a complete schedule for each city where they have an office, stating the minimum number of days that will be deducted at the bank rate, without any further charge for collecting the bill. To illustrate this procedure: the Reichsbank in Berlin will charge on a bill beyond M. 5,000 a minimum of four days for bills on Berlin, a minimum of five days on Hamburg, Bremen, Frankfort, and similar cities, a minimum of ten days for smaller bills on small and remote towns. This means that when the rate for call money and the bank rate are about even, a Berlin banker will send his bills on Hamburg to the Reichsbank for collection five days before the bills mature; if he collected them through his own correspondent in Hamburg, he would lose one day's interest at least, which would be consumed by the return trip of the money after the bill had been collected; and the longer the distance, the larger the loss of interest. When money is very easy, it pays the banks to lose that day's interest, and collect the bill themselves, since, instead of submitting to a discount of five days at, let us say, 4 per cent they might pay on call six days at 2 per cent or 3 per cent and still fare better. This illustrates how, by keeping its rate higher than the ruling interest rates, the central bank withdraws its funds from general business and accumulates reserves for times when stronger demands arise. The stronger this demand grows, the longer will be the bills which are being sent for discount to the bank, until they reach the permissible maximum of ninety days.

A consideration of these facts brought up the question as to whether it would not be feasible and conservative to allow such institutions as may be admitted to dealings with the United Reserve Bank to rediscount with it directly, and without the intervention of the banking association, legitimate paper having no more than twenty-eight days to run. It would appear that this could safely be permitted. A bill which has only a few weeks to run embodies a much smaller risk than one having three months to run. General conditions and the standing of

the bank offering the paper for discount, and of the maker of the note, can be judged with a fair degree of safety for a few weeks ahead. The United Reserve Bank would make it a rule not to buy thirty-day notes issued for the obvious purpose of being immediately rediscounted and renewed at maturity, but to acquire only paper originally issued as 2, 3 or 4 months' paper, in accordance with the usages of the trades in question. The bank examiners would be trained to ascertain infractions of the rule and, besides, the United Reserve Bank would notice them immediately when the new bill was offered for discount so promptly after the expiration of the old note. The shorter the maturities of bills, the stronger would be the United Reserve Bank's position.

While this plan would be of immense advantage to the banks, inasmuch as it would enable them without difficulty to turn into cash at once about one-third of the bills which they have discounted, at the same time it would not encourage reckless banking or speculation. No customer and no bank will dare to enter into extended commitments on the strength of an advance of twenty-eight days. What will happen after this lapse of time one does not know, and he must be prepared for possible retrenchment by the United Reserve Bank.

Moreover, some rule would have to be established that the aggregate amount of such short bills sent in for discount by any bank should not exceed a certain percentage of its capital and surplus, and that the aggregate amount of paper sent in for discount issued by one individual or concern should not exceed a certain part of such surplus and capital. This method would appear to be entirely safe; if deemed necessary the twenty-eight-day limit might be reduced to twenty-one days. In the writer's opinion a twenty-eight-day limit is conservative.

We should then have one rate at which the branches of the United Reserve Bank in the banking association cities would take short bills directly from members, and one rate, possibly the same, at which they would take longer bills from members with the guaranty of the banking association.

There remains to be established one more rate, the private discount rate, at which the United Reserve Bank would take

sixty or ninety-day bills, drawn by commercial firms on, and accepted by, a bank, trust company or private banker [as under (4)]. The private discount rate of the United Reserve Bank would be kept very low in the beginning, for the purpose of encouraging shippers at home and abroad to use the credit of American banks, where now they use foreign credit. Shipments of coffee from Brazil to New York and of cotton from Galveston to Boston are now usually financed by long drafts on Europe. Under this plan such banking transactions will be turned over to the United States. Bills will be drawn on American banks and bankers, instead of on London, Paris or Berlin, and instead of being financed by others we may gradually become the financiers of others. Not only will this increase our trade, but most important of all, once we establish the modern banking bill in the United States, its use will grow and our banks will reap the tremendous advantage of being able to invest their deposit money in assets upon which they can quickly realize at home and abroad. As the use of this modern paper increases, so will the financial safety of the banks and the business community.

These bills will be strictly commercial in character and it will be an easy matter to scrutinize the legitimacy of their origin. At least two well-known banks, trust companies, discount companies or bankers must accept or endorse them, and one of these names should be that of a member of a banking association. This is much more than any European central bank requires, and it should be entirely sufficient to provide against any political or financial danger in this respect. On the other hand, the powers given are far-reaching enough to bring about the most important change, *viz.*, the creation of modern American bills of exchange.

There remains to be considered one more field of activity for the United Reserve Bank; that is, its privilege of buying foreign bills having not more than ninety days to run. This power is necessary for obvious reasons. It would afford the United Reserve Bank an opportunity to employ its idle funds in times when the management should decide upon a policy of withdrawing funds from use in the United States, and it would enable

the bank to accumulate an interest-bearing gold reserve; for foreign bills are available for the purpose of drawing gold from foreign countries, and they also serve as a means for warding off withdrawals of gold.

We now have a fair outline of the normal functions of the United Reserve Bank. Though restricted in its dealings to the utmost limit of safety, with respect to its scope of transactions and to its circle of clients, its effect will be most far-reaching.

The cash reserves now scattered and useless will be concentrated into an effective central reserve. The general banks will hold a sufficient amount of till money for their requirements, but as a reserve they must hold a cash balance with the United Reserve Bank, commensurate as at present with the aggregate amount of their deposits. If cash is withdrawn from the general banks, they in turn will draw on the United Reserve Bank for their needs and will replenish their balance by sending to it for discount short or long bills. As a result the dreaded cash withdrawal will lose its terrors for the banks.

If a Chicago bank withdraws its balance from a New York bank, all the latter has to do is to notify the United Reserve Bank's branch in New York, by a transfer check, to transfer the amount in question from the account of the New York bank to that of the Chicago bank. Wherever branches of the United Reserve Bank are established, the wasteful remittances of cash between members will cease. The bank will act like a huge clearing house for the settlement of balances between various sections. Millions are now constantly in transit, moving to and fro, crossing and recrossing one another in opposite directions. Hundreds of millions are kept in scattered balances, which can be centralized under the new system.

While banks now immobilize their assets by buying commercial paper which is legitimately issued, but which is practically non-negotiable, and while they use for quick assets call loans on the stock exchange, that cannot be called in a panic or a time of stringency which falls short of panic, the new system makes commercial paper a quick asset which can be converted into a cash credit or into actual cash. Our present scandalous system, of attempting to regulate the money market of the entire

country by first pouring money into the stock market, and then withdrawing it, creating inflation and exorbitant security prices, followed in due course by stringency and unnecessary price depression, will give place to more orderly movements, as our discount markets develop.

This plan would be incomplete if it did not touch upon, without discussing in detail, the question of the government bonds and the notes issued against them by the national banks. It is certain that this question must be dealt with in a way entirely fair to the national banks. Otherwise they will oppose the plan. Having bought these bonds under the note-issuing privilege, they are entitled to due consideration if this privilege is to be withdrawn. It is most opportune that, whether we want a central bank or not, our miserable system of bond-secured note issue has at last come to a fatal *impasse*. One of the most beneficent influences of the construction of the Panama Canal is that it is opening our eyes to the impossibility of linking together the aggregate amount of the funded debts of a great nation and the aggregate amount of currency in the pockets of the people. There is no doubt that this foolish inflation of our currency and of the price of our government securities must now stop. There is furthermore no doubt that elasticity means expansion *and contraction* and not expansion alone, as results from our present currency system.

In order to secure an elastic currency and a safe basis for a United Reserve Bank, we must reduce our outstanding currency somewhere, so as to substitute the new elastic note issue—an issue that will contract, so that it can expand with safety. One way would be an inverse conversion; that is, a gradual withdrawal of the existing note-issuing power with a simultaneous conversion of our government bonds into obligations bearing a somewhat higher rate of interest, thereby safeguarding the banks against a loss in the price of their bonds. This would bring the price of our bonds to a normal level, like those of England, France and Germany, whose people can afford to hold government securities. The higher interest rate to be paid by the government to the people would be the most wisely spent money in our entire budget. There are several other

ways of dealing with this problem. Suffice it to say here, that to solve this part of the problem does not offer insurmountable difficulties. It will be necessary only to investigate which method is the best, and offers the least resistance.

II

Let us now turn our attention to the criticisms of those opposed to a central bank system in the United States.

Mr. Morawetz says [1] that the territorial expanse of the United States is too large for such a system, that the bank would be one of too "colossal magnitude" and that it would be necessary to place the central bank in a position to regulate and control financial conditions throughout the country. He furthermore claims that the central bank would either "have the power to discriminate," and therefore "the managers would be placed in the attitude of beneficent dispensers of bank credit and of prosperity" or, if properly restricted, the bank would be "a penny-in-the-slot machine for obtaining credit," the resources of which might be drawn upon too heavily by "banks engaged in speculative business or located in sections of the country where interest rates are high."

The size of the country is an argument not against, but for, a central-bank system. A small and unimportant country could live with a less perfect system, and could lean upon the other central-bank countries in times of need. The immensity of our country, our resources and our transactions renders it absolutely necessary for us to adopt the most efficient system in existence.[2] The greater the area, the more perfect the system must be in order to reach every remote point. The plan here outlined covers the whole country. Each section of the United States, as a matter of fact, will have a central reserve bank of its own, where directly—or indirectly through its correspond-

[1] Victor Morawetz, *The Banking and Currency Problem in the United States*, The North American Review Publishing Co., N. Y., 1909; and *Address on the Banking and Currency Problem and the Central Bank Plan*, delivered at the Finance Forum of the West Side Y. M. C. A., Nov. 24, 1909.

[2] Our weight has become too heavy and threatens, at times, to break the European machinery which we use to make up for the lack of elasticity in our own system.

ents—each bank in the United States will enjoy the advantages offered by the United Reserve Bank. While the general policy will be settled at the head office, in consultation with the presidents of the branch offices and the members of the central board, the actual business will be done by the branch offices, which will act as separate units for each section.[1] There will be this most important difference, however, that, as far as reserves are concerned, they will be united and act as one. The surplus of one section will be available for other sections and the interests of all together will bring about the general policy of the United Reserve Bank. The effectiveness of this plan would not be interfered with by a provision that the discount rates of all the branches need not necessarily be the same. Thus it might be possible to meet undue expansion in one section of the country by increasing the rate of that branch without increasing the rate for other sections.

As outlined here, the United Reserve Bank will not be a "penny-in-the-slot machine," any more than the European central banks, which discount and advance upon uniform conditions published from time to time. The United Reserve Bank would certainly have the right to refuse any paper that did not appear safe or legitimate. Furthermore, the power to increase or decrease its rate and its circulation would place it in a position amply to protect itself and the country. At the same time, the restrictions placed upon it absolutely preclude any danger of its becoming "a beneficent dispenser of bank credit and prosperity." The fear that some section, where interest rates are high, might absorb all the available means of the United Reserve Bank, may be dismissed from consideration. The proportion to be fixed between capital-and-surplus and amount admissible for rediscount with the United Reserve Bank would prevent such abuse. Besides, as this facility of rediscount is a most valuable element in the strength of a bank and its real reserve, no conservatively managed institution would go to its full limit in normal times. An institution known to abuse

[1] Even the banks at Washington, D. C., would deal with the United Reserve Bank only through a local branch office, like all the other banks in the country.

its rediscounting privilege would quickly lose standing in the community.

Mr. Morawetz's next criticism is directed against the "control of the bank." It is contended that there would be too much one-man control, or control by a group; that the bank might become involved in political strife or become the issue between contending political parties. The first two points we have already answered at length, and little remains to be added in this respect. The central office would merely indicate the policy; the branches, which practically are under the supervision of the local banking associations, would undertake certain well-defined, safe transactions, into which no element of politics could enter, any more than it enters into our clearing houses. No political patronage whatsoever would be connected with the United Reserve Bank. A conscientious and honest man, not even brilliant, would be required to fill the presidency, at the pleasure of a board which, as we have seen, would be made up of the best men the various banking communities could secure as delegates. There is no reason, despite our critics, why such a board should not work harmoniously and effectively, and whoever examines the plan from an unbiased point of view will see no danger of excessive power being vested in one man.

Mr. Morawetz claims that great disaster would follow if the central reserve bank, once established, should be abolished again. Quite true; but should we hesitate to build a water reservoir, because we feel that it would be a calamity if one day it were to be removed? It is safe to say that if a system were established as safe as the one here outlined, it would develop as our country develops. Its requirements might change; but just as little as we can go back to the old mail coach after the railroad, just so little can we return to our present impossible system, once we have modernized it. If frauds or patronage fill the post office or the custom house or the army and navy or the treasury, we should clean up but not abolish those departments. Though it is difficult to perceive how under our plan abuse could develop, in such a case we should clean the house, but we should not destroy it. Mr.

Morawetz concludes his argument by saying that a central bank should not be tried because if it should fail, the cause of true reform would be postponed for a generation. In so doing, he reminds me of a man who should refuse to be born, for fear that he might die!

Now let us analyze Mr. Morawetz's plan.[1] Under it, Mr. Morawetz provides for a board of managers, to be elected by the banks. This board, in conjunction with the secretary of the treasury, will have the right and duty of dictating to every bank in the United States what percentage of cash it must hold against its outstanding notes.

We grant that such a board could be so constituted as to be

[1] [At the request of the editor, Mr. Warburg has left this section as written in the spring of 1910, though Mr. Morawetz has since modified his plan in some particulars. —Ed.] Mr. Morawetz's plan provides for so-called "note-issue associations," embracing practically all the national banks of the country. The banks will appoint a board of managers, who in conjunction with the secretary of the treasury will have authority to establish branches wherever they deem it advisable, the main office of the association being at Washington.

The main function of the central office and the branches will be to regulate the issue and redemption of notes. Each national bank will be entitled to issue against its general assets an amount of notes equal to its capital stock. The board of managers, however, has the right to increase the amount of note issues of the banks to some fixed percentage of the capital stock of the banks, and this board also has the power to reduce such increase as it may have authorized. Each bank having taken out notes will be required to keep on deposit with the association, as redemption fund for their payment, a sum of lawful money equal to such percentage of the notes as may be prescribed from time to time by the board of managers and the secretary of the treasury. The required percentage of the redemption fund will be fixed from time to time by general order applying equally to all the banks, but the required percentage will never be less than twenty per cent of the outstanding notes. It is left open for further discussion in the plan whether each bank shall receive a special note issue and shall keep a separate redemption account, or whether it will be practicable to have one joint issue and one joint redemption account.

The general idea of the plan is that when notes are issued, they shall be covered by a substantial amount of cash to be set aside in the redemption fund, let us say forty to seventy per cent. The board of managers will have the power, in times of stress, to allow a reduction of this reserve in the redemption fund, which, however, may not be lower than twenty per cent, and in times of easy money, the central board may decree that this redemption fund be increased up to one hundred per cent, so as to withdraw the notes, finally, from circulation.

The plan provides for the withdrawal of all national-bank notes secured by government bonds. Some provision has been made to protect the bonds owned by the banks.

safe; but every argument raised by Mr. Morawetz against the dangers of political or one-man control of the central-bank board, can be applied with equal force to his board of managers. However, the power of this board of managers is more far-reaching and of broader scope and therefore more dangerous than that of the board of the United Reserve Bank. While the central bank is a passive institution, Mr. Morawetz's board of managers is an active institution. The central bank establishes rates at which it is willing to do business, but it does not force anybody to do business with it. If the bank rate should be 5 per cent, banks in the south may find it to their advantage during the cotton-crop movement to rediscount with the United Reserve Bank, while banks in New England may for the time being dispense entirely with its services, and therefore not be affected. If, however, the board of managers, under the Morawetz plan, issues its command that all banks must increase their reserve against notes from 30 per cent to 40 per cent, it is a direct interference with the business of every individual bank in the country, no matter if money is easy in Boston and tight in New Orleans. Expansion and contraction is ordered, whether it is needed or not, for every one at the same time. How about "expanse of territory" in this case? Is it possible to regulate all the varying demands of the varying sections of our immense country at the same time by one "You must!"? It is Mr. Morawetz's "You must!" against the United Reserve Bank's "You may!" This difference is most important.

Furthermore, while the United Reserve Bank is enabled to perform its functions by the freest return of idle money into the central reservoir, thus avoiding its being needlessly held in separate reservoirs, Mr. Morawetz would force every one at the same time to withdraw more cash and to lock it up as special collateral for new notes. This power to influence money rates, vested in a few men, would, from Mr. Morawetz's own point of view, form a grave danger of abuse.

Leaving aside this phase of the question. the system is unsound for these further reasons:

(1) Our examination of modern systems has shown that note

issue is only a side question. It is a poor plan, therefore, to try to solve the main problem by attacking an auxiliary part of it. It is just as unsatisfactory as the attempt to repair a broken-down dynamo by readusting the storage battery attached to it only as an auxiliary emergency device.

(2) Notes issued by banks must be considered as demand deposits, since for both, payment in cash may be demanded. It is an unfair and unscientific plan to secure one depositor by 50 per cent or 60 per cent of cash, while the other must be satisfied with 20 per cent.

(3) It is a faulty system that will change practically the whole outstanding currency carried in the pockets of the people into money which the banks may not hold when it is paid in to them.

(4) It is an anomalous and unsound system that allows a bank to pay its creditors in notes which it may not carry as reserve, or that forbids it to carry as reserve against a deposit, notes the very receipt of which may have created such deposit.

(5) The Morawetz plan tries to solve the problem exclusively by issuing more or less currency. But it is cash credit, not currency, which is required most frequently. The two are not identical.

(6) A bank is safe in granting time loans against time money which it may have taken; the excessive granting of time loans (loans and discounts) against call loans (deposits) is dangerous and often the cause of financial disturbances. A bank already overextended, makes its condition more dangerous by granting further accommodation through note issue. For increased note issue means an increase of demand obligations, while rediscounting of paper with a United Reserve Bank means an outright sale of assets. That is, cash credit or cash becomes available without the creation of a new and dangerous demand obligation.

(7) The vicious system of separated, disconnected and competing reserves remains the same.

This is only an outline of the main arguments against Mr. Morawetz's plan. It would lead too far to follow up in detail every simple point.

What would the effect of this system be? There were in the United States in 1908, according to the report of the comptroller of the currency:

	Nat'l Banks.	State B'ks.	Trust Co's.	Sav. B'ks.
Number	6,853	11,220	852	1,453
Cap. Stock. .	$921,000,000	$502,000,000	$278,000,000	$36,000,000
Surplus. . . .	566,000,000	217,000,000	370,000,000	244,000,000
Cash.	889,000,000	308,000,000	118,000,000	44,000,000
Deposits. . .	4,374,000,000	2,937,000,000	1,866,000,000	3,479,000,000

Under the Morawetz plan, the 6,853 national banks, which are money-making concerns, competing against one another, with deposits of $4,374,000,000, would have to bear the burden of regulating not only their own conditions, but also those of the other institutions, having deposits of $8,282,000,000. But let us suppose the state banks all turned into national banks. We should then have 18,073 banks, with a capital of $1,423,000,000; surplus $783,000,000; cash $1,197,000,000; deposits $7,311,000,000. In order to bring the state banks up to the standard of the national banks, figuring only a twenty-per cent reserve, a cash reserve of $1,462,000,000 would be required, being an addition to bank cash that must be withdrawn from circulation of $265,000,000. Every bank will have the right to take out notes to at least the amount of its unimpaired capital, and the board of managers may authorize larger issues. Let us take the minimum, $1,423,000,000, and a reserve of only forty per cent. This would mean an additional withdrawal of cash of $568,000,000, or a total of $833,000,000. This means that two and three-fourths times the amount of cash held at present by all state banks, or about the total aggregate amount of cash now held by all the national banks would have to be withdrawn from circulation and be replaced by bad notes—bad because they cannot be used by the bankers as reserve money. Taking the above figures as a basis it means that there would be in the hands of the public about $1,400,000,000 of national-bank notes, while the circulation of such notes under our present system amounts to about $700,000,000.

When there is a demand for more currency, and not for more

credit, the plan may work for a while, though weakening the currency; but when there is currency enough in the pockets of the people, while demand for additional credit continues, every note issued will return at once through the redemption fund and must be paid in cash. Every bank will then try to accumulate legal-tender notes, to strengthen its power of granting credits, and will therefore at once present for redemption the national-bank notes that it receives.

Crises have frequently arisen because people believed that the top wave of demand for accommodation had passed, and all means had been spent in this expectation, when the main pressure had not yet begun. If during such critical times gold withdrawals from abroad should begin, it is difficult to see how under this plan reserves could be strengthened, for it is to be expected that in such case the reserves would already be at the lowest point. Then we should again witness the critical times when one bank, by refusing to renew its call loans and thus throwing the burden on the others, creates a credit balance for itself in the clearing house, thus strengthening its cash balance at the expense of the others. Retaliation would follow, and panic would be in sight in the future just as it has been in the past. The weakness of our present system in this respect would remain unchanged.

This plan would leave the treasury money either wastefully piled up and withdrawn from circulation, or it would leave to the secretary of the treasury arbitrary power to dispense favors by depositing the funds wherever he may prefer. It would leave promissory notes as immovable in the future as in the past, with no hope of ever developing a modern system of bills of exchange. I have no hesitation in saying that it would be a most reckless experiment, on entirely new and untried lines, and it would in my opinion lead to certain disaster.

Mr. Morawetz's plan contains two suggestions: one, as we have seen, being the regulation of reserves against note issue, and the other being the creation of sectional reserve banks. It is greatly to be regretted that Mr. Morawetz has emphasized the first scheme and touched only slightly upon the second. It is sincerely to be hoped that he will work out in detail this plan

for sectional reserve banks, which he desires to be at all times in a position to furnish reserve money to the several banks in their sections by paying checks drawn against the deposit accounts of the banks or by rediscounting paper offered by them for that purpose.

I am confident that Mr. Morawetz will soon reach the conclusion that these sectional reserve banks must be endowed with all the powers and charged with all the duties given under our plan to the United Reserve Bank branches; otherwise they will be nothing but safe-deposit vaults, which will have to hold for each bank the exact amount of cash received from it for safe keeping. They can not go a single step further without incurring the gravest danger unless they have some central bank to fall back upon, or unless they are themselves central banks, that is to say, disconnected central-bank branches. Mr. Morawetz tries to cover the weakness of decentralized reserves by providing that the several sectional reserve banks be authorized to make arrangements with one another in order to facilitate exchanges between different sections of the country. But there must be more than this authority to make arrangements with one another with a view to facilitating these exchanges. These sectional reserve banks must in the end act as a unit. Otherwise we shall have a recurrence of our experiences at the end of 1907, when one reserve center closed itself against the others, when enforced credit was established *within* each financial center, indeed, but when New York, Chicago, Philadelphia, Boston, Pittsburgh, and all the others, would not accept even the joint obligation of all the banks of their sister cities. Obligations between cities remained payable in cash, and distrust among these centers brought about the actual phase of the gold premium and the long period of general suspension of cash payments. Should a common foe attack Boston and New York, would Illinois keep her soldiers at home, or would she differentiate between Boston and New York? The knowledge that all will stand together gives a feeling of confidence and safety. It is the same with our financial reserves: they must be held united under one direction, to be thrown where they are needed and to be withdrawn from places where they are superfluous.

The joint credit of the nation must stand behind the reserves, insuring unlimited confidence that nothing will be able to shake.

There must be one big reserve, one note-issuing power, one big bank, which will be neutral, administering impartially and economically the funds of the treasury of the United States, and issuing notes that are good enough not alone for the people, but also for the banks to be counted as cash. Instead of 20,000 institutions carrying an average of 8 per cent cash against their deposits and notes, what we need is one big institution with a capital of $100,000,000, acting as reserve for all and maintaining a normal reserve for its notes and deposits alike of probably 80 per cent instead of 8 per cent. By following the central bank plan and adapting it to our conditions, we know with certainty that we are following along lines which have been thoroughly tested elsewhere and have led to success everywhere. Therefore, even with equal advantages otherwise, the central-bank plan should prevail.

In fairness to Mr. Morawetz it ought to be stated that he has never denied the superiority of the central-bank system. In fact, he advocates its adoption wherever it can be done with safety, but he believes that our peculiar conditions render it impossible to evolve a plan which will be at once safe and effective. Fear of a dangerous centralization of power has led him to prefer an attempt to control a scattered note-issuing power and has induced him to advocate separate sectional reserve banks rather than an actual unification of reserves.

The object of this essay has been to show that these half measures will not afford adequate relief and that they invite, and even to a larger degree, the very dangers which are supposed to be inherent in the central bank plan. On the other hand this essay has been designed to prove that it is possible to evolve, on the sound principle of a central bank, a plan which will not only be effective but at the same time meet the difficulties which Mr. Morawetz has so forcibly pointed out. Through his criticism he has helped us gradually to perfect the present scheme, and now that we have perhaps succeeded in meeting his objections, we trust that he will continue to help, not only by criticism, but by coöperation in further developing the scheme on lines which he himself has recognized as at least ideally the best.

III

Professor Sprague has published an article entitled "The Proposal for a Central Bank in the United States: A Critical View."[1] The conclusions which the author reaches in this essay are as follows:

A central bank does not appear to be either required or well suited to relieve our financial difficulties. On account of the absence of branch banking it would not be able to handle the government funds in a satisfactory fashion, or to provide an elastic note issue. *Branch banking is an essential preliminary, if we are to have a Central Bank of anything like the European type*, and there are powerful objections to such a change, the discussion of which does not fall within the scope of this essay.

Neither from the historic nor from the practical point of view is this conclusion correct. Effective central-bank systems existed in Europe before the branch-banking system was evolved. The Bank of England was organized in 1694, the Banque de France in 1800, the Bank of the Netherlands in 1814, and the Bank of Austro-Hungary in 1815. In all these countries the central banks performed their duties effectively during a period when banking concentration in the modern sense had not begun and when private banking firms were still transacting the main banking business. The phenomenal growth of the joint-stock banks, the absorption of private firms, and the all-embracing development of the present branch-banking system are an evolution which has taken place in Europe almost entirely within the last thirty years, and which reached its present predominating importance only within the last twenty years. The evolution of branch banking is not incidental to a central-bank system, nor is the central-bank system the outgrowth of branch banking. Branch banking, in its present form, is incidental to the unlimited power of expansion and concentration which followed the evolution of the modern stock company, the corporation.

From the practical viewpoint it is a mistake to think that branch banking is a preliminary step essential to a central-

[1] *Quarterly Journal of Economics*, vol. xxiii, May, 1909.

bank system. The influence of the central bank is stronger with a system of small and disconnected banks than with enormous branch-banking organizations which, singly or combined, are so powerful that at times they are able to pursue a policy of their own in contravention of that of the central bank. While it is true that when these banks coöperate with the central bank, the latter may accomplish more immediate results, the fact remains that these larger institutions are able, at times, to emancipate themselves entirely from the influence of the central bank and that when in the end they are forced by circumstances to fall back upon the reserves of the central institution, the sudden weight is such that the central bank finds it difficult to carry the burden.

Enormous banking concentration has been watched by the managers of central banks with a feeling of concern rather than with a friendly attitude. The central banks look upon the independent and smaller institutions as their most loyal followers, and the central banks stand, as a matter of fact, as protectors for the smaller institutions against the aggression and the overpowering influence of the larger ones. However, the jealousy between the large banks and the central banks, sometimes prevailing in Europe, need not exist with us, since in Europe the central banks compete, to a certain degree, with the general banks; a situation which would be avoided by us under the present plan. One might dissolve to-day all European branch banks into the many independent banks and banking firms which originally constituted these big concerns, and the central bank system would not suffer in efficiency from such a change. One might eliminate all the branches of the central bank, and the central-bank system would still remain efficient though it would achieve its results in a somewhat slower, less direct and hence less economical manner. On the other hand, the elimination of the central-bank system in England, France or Germany would force the smaller independent banks to surrender at once to the big banks. Without the protection of the central bank they could not survive.

The basis of the central bank is the centralization of reserves and what Professor Sprague calls "the fluidity of credit."

Eliminate these two, and the central-bank system must fail. Professor Sprague says in respect to this:

> The fluidity of credit is absent in this country, and will remain absent while we wisely continue to prefer banks managed by persons with extensive local knowledge to branch banks subject to bureaucratic managers, acting under general rules laid down at a distant head office. For this reason we cannot expect our money markets to be subject to the comparatively slight and distant influences exerted by a central bank. It would be necessary to concentrate bank reserves to such an extent that every banker would feel that his safety depended upon the situation of the central bank.

To begin with the last sentence of Professor Sprague's observations, it has been shown in the previous chapters of this essay that the absolute concentration of banking reserves into one central reservoir is the very foundation on which a modern structure should rest, and there can be no doubt that every banker in the United States would be satisfied as to the absolute safety of reserves under such a system of centralized reserves, for which, as a matter of fact, the credit of the entire United States would be pledged.

Professor Sprague's suggestion that fluidity of credit is based upon branch banks cannot be admitted. What does fluidity of credit mean? The very expression points to a credit that is liquid; it means the very thing to which I have so often and so insistently drawn attention, the question of rendering liquid the assets of a bank. Whether we had branch banks or not in the United States, the present system of issuing and handling American bills, which form non-liquid assets in the hands of the banks, would stand in the way of fluidity of credit. A central bank in the United States, even with a fully developed branch-banking system, can not effectively perform its duties unless we find some way of making these immovable promissory notes movable instruments of credit. The object of this essay is to show how a central-reserve-bank system, as here proposed, could fill the present need in this respect and pave the way for further development in the right direction. Professor Sprague's main arguments are based upon the mistaken idea

that a central bank in our country would need thousands of branches in order to *deposit* equably all over the country its own and the government's moneys and in order to *distribute* impartially its notes among the banks.

To quote his argument in this particular:

> The manner of putting this vast sum (being the balances of the United States government) into general use would be equally without precedent. Without doubt there would be a general demand that the deposits be used with a general degree of approximation to population and the supposed needs of different parts of the country. At this point an insurmountable obstacle would be encountered. To lend directly to the business community would require an impossible number of branches. Lending at the relatively small number of branches which we have assumed might be established would not accomplish the purpose.
>
> In order to distribute its funds widely, the central bank would be obliged to lend to at least as many banks as there are localities; and, since the selection of a single bank would give rise to charges of favoritism, the bank would be certain to lend to all the banks. The central bank would be obliged to decide between the claims of 15,000 or more banks.

This shows an entirely erroneous conception of the activities of a central bank in general and of our United Reserve Bank in particular. Under our plan, the central institution would neither deposit moneys nor distribute notes; it would discount paper and collect discounted bills as they fall due. Depositing moneys is an operation in which the initiative would rest with the central bank and in which the danger of favoritism might be lurking. For the operation of discounting bills at a published rate, the initiative rests with the general banks and, within certain limits, with all banks alike. The United Reserve Bank does not reach the banks, but the banks reach the United Reserve Bank; and the organization as here proposed would enable each bank in the country, directly or indirectly, to reach the central institution.

While as a matter of safety, economy and efficiency, a number of branches as proposed in our plan would certainly be advisable and feasible, there is no need for thousands of

branches to reach every single point where banks are in existence. Professor Sprague evidently does not appreciate the spreading power of the discount rate. When promissory notes or "bills" become "bills of exchange," money for safe and legitimate purposes flows easily from one end of the country to the other, and the higher the development of the discount system, the more the spreading power of money will be felt and the safer our system will become. While our plan does not attempt to provide the highest degree of fluidity for the present, it will create conditions under which the spreading power of the discount rate will be felt at once, and that will ensure efficiency for the United Reserve Bank and safety for the country.

We cannot imagine that the prices for staples will ever vary greatly between New York and San Francisco in spite of their territorial separation. The maximum difference would probably be the cost of transportation between the two cities. This is explained by the fact that we have established certain brands or standards as the basis of our dealings, which enable us to purchase and sell by letter or telegram without negotiating for individual bags or boxes which we sample and select. Without this method we should deal with necessities as we deal with luxuries, paying for each article a fancy price, which price may differ widely in the various parts of the country, though the quality be the same. In this respect the bills receivable of an American bank are like a collection of curios, selected with care and pride by the president of each institution, but difficult of sale unless another collector is found who happens to be interested in the same article, and who does not possess too many of the same kind already. Bills receivable in Europe are like so many bales of cotton, bushels of corn, or bags of coffee, standardized, homogeneous articles, which can be sold at once. The discount rate of the central bank, on the strength of which the general discount market develops, is a potent factor in bringing about the creation of standardized bills of exchange. This evolution in the United States also will follow the establishment of a United Reserve Bank, which from the beginning, even with our present conditions, will be able to provide a fluidity of credit sufficient to make the plan effective.

When we conceive clearly the fundamental ideas underlying the working of a central-reserve banking system, we see the lack of force in Professor Sprague's argument that " our difficulties would appear, as in the case of government deposits, as soon as the attempt was made to place the notes where they were really needed,—in agricultural sections of the country," in view of the difficulty which he foresees, that the banks generally would be too eager to secure these notes and use them as reserves. Under our plan a balance with the United Reserve Bank is equivalent to cash in hand, and therefore there will not be an eagerness to secure any notes, except as they may be required for actual circulation.

Professor Sprague appears inclined to think that a further danger inherent in a central-bank scheme would lie in the direction of increased expansion. Under existing conditions, in his opinion, the risk of undue expansion could be averted and " normal seasonal variations in credit requirements could be readily met if our banks were less given to the habit of lending to the full extent of their resources in months when the course of business gives them an abundance of cash." His final recommendation is that the six largest New York national banks should hold reserves of 30 per cent in times of financial quiet, and that they should use these reserves freely, without considering the 25-per-cent limit, in times of financial disturbance. Incidentally the suggestion is made that reserve banks and central-reserve banks be not allowed to pay interest on bankers' balances. These suggestions are coupled with a curious panegyric, praising the use of the clearing-house certificate, with a somewhat disguised recommendation of partial suspension of payments as a legitimate means of meeting extraordinary demands, and with an attack on the New York banks on account of the " ignorance of our bankers of the only method which experience in other countries has shown to be uniformly successful in allaying financial panics." The method here referred to by Professor Sprague consists in meeting unreservedly, by freely paying, any demand for cash made upon the banks. In this respect he makes the following statement:

We already have far more centralization of banking power in New York than is generally realized. Before the crisis of 1907 the six largest New York national banks held net bankers' deposits of $305,000,000 out of a total of $410,000,000 of such deposits held by all the national banks of the city. It is somewhat disconcerting to find that these banks, which held a reserve of $140,000,000 in August, 1907, still held $110,000,000 in December, 1907.

No stronger argument can be made in favor of a central bank than is contained in this statement. Once a panic begins under our present system of decentralized reserves, there is no other means of salvation for reserve and central-reserve banks than to stop payments. In their anxiety the country banks, which held $305,000,000 of balances in New York, would have withdrawn the entire $140,000,000 available in New York in August, 1907, and while this process of diminishing reserves in New York was taking place, it stands to reason that the demand for cash within New York by the other depositors of the New York banks would have increased at the same dangerous rate. A system of decentralized reserves without any provision for transforming cash credits readily into cash must inevitably come to grief in a period of distrust, no matter whether the New York banks keep reserves of 30 per cent or 25 per cent in easy times.

Professor Sprague does not appreciate the difficulty these six banks would have in realizing when conditions for legitimately decreasing the reserves actually prevail. These banks are primarily money-making concerns; if, during times of strong demand for accommodation, they should refuse to grant it and call-money rates should rise to extraordinary heights—as they inevitably must under our present system—these Wall Street banks would be accused at once, as they always have been in the past, of greed and manipulation. If they should meet the demands, yielding to such clamors, their reserves would soon diminish, and conditions would remain as heretofore. When the panic came, as come it inevitably would, it is more than probable that the reserves of the banks would already be below 25 per cent.

Furthermore, if we carried out Professor Sprague's sugges-

tion, that the central-reserve banks should not allow interest on deposits by other banks, the immense balances kept by country banks in New York would cease, and the restrictive power which Professor Sprague wants to apply to these banks would thereby become void. These large amounts are not kept in New York for the sole purpose of acting as a safe reserve, but they are sent to New York to act as "on call" assets which at the same time earn interest. It is for this reason that Professor Sprague's remarks are not justified, when he says: "The failure to adopt proper methods seems to be due not so much to inability as to a failure to recognize the responsibility of their position by the New York banks which hold bankers' deposits." Country bankers demanding interest on their balances cannot expect to have them kept in cash.

It is strange that a writer searching for remedies on the lines of the above suggestions should find fault with the central-bank plan, for the reason that, as he believes,

it would not be able to exert a restraining influence upon the expansion of credit, because it would have no means of carrying out a precautionary policy. Is it not certain that, in the eager search for funds in times of active business, the other banks would resort to it for heavy loans? Doubtless a considerable measure of accommodation would have been thus granted if we had possessed such a central bank in the years before the crisis of 1907, even though it had been managed with far more conservatism than we have any reason to be certain of securing at certain times. Every dollar thus borrowed would have been an addition to the extension of credit at a time when restraint was needed, not expansion.

The central bank would have been creating a certain amount of credit expansion, which its later power of contraction could certainly not have exceeded, and probably could not have equaled, because the volume of credit cannot be largely diminished without serious disturbances. The power to issue notes by a bank of this kind would be a positive evil unless it were strictly reserved for use only upon occasions of actual emergency.

It is evident that a central bank managed with the single object of watching expansion and contraction, and of maintaining the safe proportion between cash and cash obligations, a

bank which cannot be swayed in its policy by any prospect of gain, and a bank the management of which is not subject to the immediate pressure brought to bear by the customer in need of accommodation, will be in a vastly better position to form a clear opinion concerning the larger point of view of the country's financial conditions than a local money-making bank. The central bank would not be subject to the same temptations nor to the same attacks, in case it should deem it necessary, in order to force general contraction, to insist on higher discount rates; but, incidentally, its very existence would prevent the exorbitant rates which from time to time are inevitable under our present system.

Professor Sprague's argument that "the central bank would bring about exclusively further expansion of credit," would be sound only if we did not provide for contraction at the same time and from the very beginning. A substitution of notes of the United Reserve Bank for either the bond-secured currency or the greenbacks presupposes from the outset that into our present ever-expanding currency we should inject a large amount of currency which will contract and which must return to the United Reserve Bank the moment that this institution, in easy times, decides to collect its short bills without renewing its investment in them.

No European system provides, as our plan would do—as a logical development of existing conditions—that banks should maintain so substantial a proportion of their deposits as a cash balance with the central bank. This in itself is a regulator; and even if, on the other hand, owing to our present conditions, the United Reserve Bank did not have the same power as that enjoyed by the European central banks, thanks to the importance of the European discount markets, the combination of balances to be kept and transactions to be made with the United Reserve Bank in order to maintain these balances would give it a certain restrictive and regulative power, the possibility of which Professor Sprague denies.

From the practical viewpoint there can be no doubt whatever that the basis for a healthy control by a central bank must exist in a country where regular seasonal requirements cause,

with almost absolute regularity, acute increased demands for money and accommodation. A country of this kind will require at given periods certain additional accommodation to avoid stringencies as now experienced by us from time to time, and will stand without disturbance the withdrawal of the additional funds after the seasonal demand has subsided. Because our present currency system is expansive only, and lacks the power of contraction, we experience the difficulty of meeting unusual demands whenever they arise. Why should we assume, on the one hand, that the best men to be found, when placed at the head of such an institution, would be unable to cope with the problem, and at the same time be ready to place the burden on the shoulders of the managers of the six largest Wall Street banks,—the very men whom Professor Sprague accuses of having proved entirely unable to meet the needs of the hour in 1907?

The same argument holds good with respect to the treasury funds. While denying, on the one hand, the ability of the central-bank management to deal with the large funds of the treasury in the guarded and safe way in which a United Reserve Bank disposes of such funds, Professor Sprague is evidently willing to let the secretary of the treasury continue as heretofore to dispense his favors as well as he can.

As to the wisdom of allowing the United Reserve Bank to issue "unsecured notes," the writer believes that under the plan here outlined it is not probable that for many years to come unsecured notes will be issued to any considerable amount, if at all. But it appeared advisable to endow the United Reserve Bank with this privilege, so as to imbue the country with the fullest confidence that cash will always be forthcoming. This confidence will be the very means of rendering unnecessary a large issue of unsecured notes.

It is impossible to reply to every single point enumerated by Professor Sprague. I have therefore singled out these fundamental arguments that needed refutation. But, in closing, let us touch upon one more point raised by Professor Sprague. It is evident that one of the functions of the United Reserve Bank would be to accumulate, in easy times, large amounts of foreign

bills of exchange to hold them as a gold reserve against emergencies. Professor Sprague believes that this would create anxiety in Europe. An accumulation of foreign bills of exchange would, indeed, give fair warning to the European central government banks that in case of a stringency arising with us they must be prepared to meet a sudden demand from the United States. But the foreign government banks would vastly prefer this danger, which amounts to nothing more or less than the perfectly legitimate collection of debts incurred by their own countries, rather than be subject to the violent attacks to which all Europe is now exposed when a panic is raging with us. There can be no doubt that the unwelcome presentation of a bill payable to the United States, but instrumental in avoiding a panic in the United States, would be much more satisfactory to Europe than a general suspension of payment with all the consequent terrors at home and abroad.

It is a rather amusing coincidence that in this controversy the rôles have apparently been exchanged. One would expect that the professor's and lawyer's point of view would be that nothing can be sound in practice which is unsound in theory, while the banker's attitude might be expected to express itself rather in an attempt at patching up existing conditions by practical measures without much concern about the theory. The banker's view in this case is summed up by asserting unequivocally that no monetary reform will be sound and effective which neglects the theory of centralized reserves and fluidity of credit.[1]

IV

Some critics have raised the objection that a bank as here outlined would not earn its dividends. There cannot be any doubt that the United Reserve Bank will without difficulty earn a return on its capital in excess of 4 per cent per annum. But

[1] Just as this essay is going to press, Professor Sprague has begun the publication of a new series of contributions in the *Quarterly Journal of Economics*, vol. xxiv, no. 2. He has here somewhat modified his recommendations, but before dealing with them, it will be necessary to await the appearance of the further chapters which are announced. What has been said of Mr. Morawetz, at the end of page 328, however, applies equally to Professor Sprague.

we should bear in mind that this question of earning power is of very minor importance. If we want a bank which is not to be run for profit, but for the general weal; if we want to cede to the United States any profit in excess of 4 per cent net; and if, at the same time, we want the stockholders to be satisfied with a 4-per-cent investment, we should be fully justified in proposing that the United States guarantee a return of 4 per cent to the stockholders. Or, to express it in a happier way, it might be suggested that in consideration of the profits to be turned over to the United States by the United Reserve Bank and in consideration of the savings to be made by the United States in transferring the various disbursing and collecting functions from the treasury to the United Reserve Bank, the government of the United States should contribute to the running expenses of the United Reserve Bank such lump sum as will enable it to pay to its stockholders a dividend of 4 per cent per annum. It is safe to expect that, once established, the United Reserve Bank will become a permanent source of revenue to the government, and that important savings in its present budget will be effected.

One more word in closing. The thought is general, with people who have not studied the question, that a central bank is a step towards monopoly. The reverse is the truth. Wherever a central bank exists, it is the backbone of the independent institutions in their fight against the overpowering influence of the large stock banks, as they exist in England, France and Germany. It should be clearly understood that the United Reserve Bank, by creating safe conditions, would make the small banks independent, where they now have to rely, and are dependent, on the goodwill of their big sisters or the often doubtful ability of the secretary of the treasury to help. A central-reserve bank properly organized is not an oligarchic but a democratic institution; it would mean safety for all, hardship for none.

There is no good reason why the existing banks should oppose it. Wherever a central bank has been established the vested interests at first tried to prevent its creation. They saw only the danger of a change in business conditions which, though

bad in general, had been profitable to them. They recognized only later that by the change they were enabled to transact their business in safety and that therefore they could do a much larger business. There is not one of these countries, in which opposition ran high against a central bank, where today a move to do away with the central-bank system would meet with the slightest support. Neither the socialist nor the capitalist would dispense with it; it has become one of the fundamental parts of the economic life of modern nations, like the telegraph or the railroad.

Would it be repugnant to the so-called American spirit? Is it an un-American institution? Our opinion is that it is a slur and a slander upon the American people to say that they are morally or politically so utterly unfit that they cannot afford to adopt a system for which Russia, Japan, the Balkan States, and some of our South American sister republics, have proved adequately prepared and which even China is seriously thinking of establishing in the near future. We believe that the people will wake up to the humiliation of present conditions and that they will demand in no uncertain voice a thorough modernization of our system. We are inclined to think that ignorance about what a central bank would really mean has been more responsible for the popular antagonism to such a system than has the ghost of Andrew Jackson. Good American citizens, who lived two generations nearer than we do to the dissolution of the last Bank of the United States, and were more familiar with its history than are the people of today, did not consider it an un-American institution. In this respect Abraham Lincoln's first political speech, which he delivered at New Salem in 1832, may be of interest. He said:

"*Friends and Fellow-Citizens:*

"I am plain Abe Lincoln. I have consented to become a candidate for the legislature. My political principles are like the old woman's dance—short and sweet. I believe in a United States Bank; I believe in a protective tariff; I believe in a system of internal improvements, and I am against human slavery. If on that platform you can give me your suffrages, I shall be much obliged. If not, no harm done, and I remain respectfully yours,

"ABE LINCOLN."

It is seventy-seven years ago that this simple man from the woods, with his never-failing instinct, laid down this remarkable program, of which only one single part, "a United States Bank", remains to be carried out. Let us hope that it will be the pride of our generation to have achieved this step in the onward march of the United States.

THE BANKING AND CURRENCY PROBLEM AND ITS SOLUTION

BY VICTOR MORAWETZ

DEFECTS OF THE EXISTING SYSTEM

THE banking and currency system of the United States is radically defective for the following reasons:

1. In the United States there is no power to control the expansion of bank credits in the aggregate in relation to bank reserves in the aggregate, or to control and regulate the issue of bank notes, and there is no way of securing the adoption of a common policy by the various banks and trust companies when concerted action is necessary for the security of the general credit situation. There are more than twenty thousand independent banks and trust companies, each carrying on a banking business for its individual interest alone, independently of the others. Each of them is managed solely with a view to its own profit and at all times seeks to lend its credit to the limit permitted by its own safety or by the reserve requirements prescribed by law. The result is that credits are expanded, speculation is encouraged and business operations are extended to the utmost limit in normal times, and no provision is made for those times when an exceptional amount of currency is withdrawn from the bank reserves for use in circulation, or when there is a demand for an exceptional amount of bank credit. The rope of credit having been stretched in normal times to the limit of its strength breaks when an exceptional strain is put upon it.

Many of the banks seek to make provision for strengthening their position in times of need by keeping a substantial part of their resources in the form of deposits with other banks or in the form of call loans. But when a bank strengthens its own reserve by drawing upon its deposit with another bank, it must weaken to the same extent the reserve of this other bank; and when a bank strengthens its reserve by calling a loan, the result is merely to shift the loan to other banks, though a high rate of

interest may be exacted. Even if the borrower cannot obtain accommodation from other banks and must sell his collateral, the purchaser has to draw upon the banks to pay the purchase money. Therefore, though deposits of banks with other banks and call loans against good stock-exchange collateral may enable a bank to strengthen its reserve in normal times, they are not a means of preventing the occurrence of a general money stringency and they add no strength to the general credit situation when such a stringency arises.

2. No adequate provision is made for concentrating the reserve money of the several banks so as to render it available wherever most needed in times of financial stress. Under the national banking act the country banks may keep part of their reserves in the form of deposits with the reserve-city banks, and the reserve-city banks may keep part of their reserves in the form of deposits with the central-reserve-city banks. Under the various state laws, the trust companies and state banks also may keep their reserves, or part of them, in the form of deposits with the banks in the reserve cities and central-reserve cities. In practice a large part of the reserve money of the banks is held by the central-reserve-city banks in New York. This system wholly fails to accomplish the desired result, because the reserve money is scattered among many separate banks, each of which habitually expands its loans and its deposit liabilities and carries on a general banking business, without due regard to its responsibilities as a depositary of the reserves of other banks. Consequently, in case of a general money stringency, the banks in the reserve cities and central-reserve cities are not prepared for the withdrawal of large amounts of their reserve money by depositing banks, and often there ensues a scramble among the banks for the available reserve money, each bank seeking to improve its own condition at the expense of the others. Sometimes this results in a general suspension of cash payments by the banks, though the aggregate amount of reserve money then held by them, if properly distributed and used, would be ample to supply all the circulating currency required by the community, and also to furnish adequate reserves for all the banks.

3. Owing in large part to the absence of any large bank or banks, prepared at all times, and upon reasonable terms, to rediscount commercial paper held by other banks and to buy commercial bills accepted by other banks or by private bankers, neither the system of commercial credits prevailing in other countries nor the custom of rediscounting commercial paper held by banks and banking institutions has grown up in the United States. Consequently, commercial paper, in great measure, is a fixed investment until paid, and a bank cannot in time of need increase its available reserve by selling commercial paper to other banks. This is one of the causes of the prevailing practise of keeping a substantial part of the resources of the large banks in the form of call loans and of investments in salable bonds. If, when there is a money stringency, the banks could readily sell their commercial paper, they would keep less of their resources in the form of call loans and investments in securities, and the amount of bank credit available for the legitimate commercial business of the country would be largely increased.

In normal times, or when money is easy, the banks usually would wish to retain their investments in commercial paper. An assured market for their paper would be of importance to them only in times of stringency in the money market. But, as all the banks in the United States habitually expand their credits as much as possible, each bank in times of money stringency needs all its resources to meet the requirements of its own customers and, as a rule, no bank is willing and able to help other banks by rediscounting paper upon reasonable terms. Therefore, in order to obtain the principal advantage of the foreign system of commercial credits and of the custom of rediscounting commercial paper, it would be necessary to establish in the United States a large bank, or several large banks, ready and able, in all conditions of the money market and upon reasonable terms, to rediscount commercial paper bearing the endorsement of other banks and to buy commercial bills accepted by other banks or by private bankers.

4. In the United States the issue of bank notes is not regulated according to any banking principle. The issue of bank

notes against the deposit of government bonds is governed, not by the need of the country for additional currency, but by the price of government bonds and by the ability of the banks to make a small profit through the issue of the notes. The power to issue bank notes under the Aldrich-Vreeland act does not serve as a means of controlling and regulating the expansion of bank credits or the international flow of gold available as reserve money, or as a means of preventing money stringencies. At best it can be used only as a means of preventing a financial catastrophe after a severe money stringency has arisen and after the business interests of the country have suffered serious injury.

Bank notes may properly be issued for the purpose of furnishing a form of currency that can be transported and preserved more conveniently than gold coin; but in this event the notes should be issued only against the deposit of a like amount of gold for their redemption, as in case of Bank of England notes and United States gold certificates. The issue of bank notes under these conditions is merely a measure of convenience and has no effect upon the volume of the currency, or upon the reserves and the credit power of the banks. In the United States the issue of bank notes for this purpose is not needed, as United States gold certificates can be obtained whenever desired against the deposit of gold.

In the United States the only justifiable ground for the issue of bank notes is to prevent fluctuations in the reserves and in the credit power of the banks resulting from periodical fluctuations in the amount of currency used in circulation, and to control and regulate the expansion of bank credits in the aggregate and the international flow of gold. When there is a demand for additional currency for use as a circulating medium, the issue of bank notes may serve as a means of preventing the withdrawal of reserve money from the banks, with the consequent large contraction of their credit power. The subsequent redemption of the notes, when the need for the additional currency has ceased, may prevent the accumulation of currency in the banks, resulting in excessively low interest rates, and may check an undue expansion of bank credits or the export of gold which may soon be needed again. A contraction of the volume of out-

standing bank notes may serve also as a means of causing higher interest rates and a contraction of bank credits, and as a means of inducing the importation of gold when needed for the safety of the general credit situation. The issue and redemption of bank notes may thus be used as a means of protecting, controlling and regulating credit conditions throughout the country.

But, unless used sparingly and wisely, the power to issue bank notes may produce grave evils. The amount of gold needed as bank reserves and as a circulating medium tends automatically and by force of the laws of trade to flow into the country in exchange for commodities and securities, or by way of loans. The use of bank notes instead of gold as a circulating medium tends to check this natural flow of gold. If bank notes should be issued or should be kept outstanding when an increase of the currency in circulation is not needed, the effect would be to drive an equivalent amount of lawful money out of circulation into the bank reserves, and to produce very low interest rates, which, in turn, would tend to cause an inflation of bank credits and the export of gold until the reserves held by the banks and their credit power had been adjusted according to the demand for bank credit. To the extent that notes were substituted for gold in circulation, the power thereafter, by means of the issue of bank notes, to protect the bank reserves and to control and regulate credit conditions would be used up and would no longer be available when needed. The ease of the money market resulting from the issue of the notes would be only temporary, and the ultimate result would be to weaken the foundation of the whole structure of credits throughout the country. If a very large part of the currency in circulation should consist of bank notes, the withdrawal of a considerable amount of gold from the banks for export, in consequence of the fear of a war or other cause might compel the banks to default in the payment of their notes upon demand, and because of the large amount of silver and government notes in circulation might imperil even the maintenance of the gold standard of value. For these reasons the issue of bank notes for the profit of the banks or as a means of furnishing a market for government bonds is wholly unjustifiable. The issue of additional bank notes, as a

measure of national economy, to save the use of gold as a circulating medium, would be equally unjustifiable and might prove a dangerous expedient. The United States is the richest country in the world, and it can afford to use in its currency relatively as much gold and as little paper as any other country in order to insure the safety and stability of financial conditions. But, although in the United States financial conditions are less stable than in England, Germany and France, the volume of uncovered paper currency now outstanding is larger than in any of those countries, per capita of population as well as in proportion to the volume of gold in the currency. It would not be prudent to diminish still further the proportion of gold in our currency in order to save the use of a comparatively small amount of gold as a circulating medium.

THE CENTRAL BANK PLAN

In every important commercial country except the United States the machinery for securing the necessary control and regulation of the expansion of bank credits in the aggregate and for keeping an adequate amount of currency and of credit power available for use in times of need has been provided by establishing a central bank which is charged with the responsibility and the duty of protecting financial conditions throughout the country. The necessary power is vested in the central bank: (1) by making it the common depositary of a large part of the reserves of the other banks; (2) by making it the sole depositary of government moneys; and (3) by conferring upon it a monopoly of the right to issue circulating notes.

The required regulation is effected by one or both of the following methods: (1) By acting as a bank for the discount and rediscount of commercial paper and by raising or lowering its discount rate, and sometimes, when interest rates are excessively low, by borrowing in the open market, the central bank to a certain extent regulates interest rates and the expansion of bank credits, and influences the flow of gold to or from the country. (2) By issuing its notes, which serve as circulating currency in lieu of gold, the central bank prevents the withdrawal of gold from the bank reserves for use as circulating cur-

rency, with the consequent reduction of credit power; and by diminishing the volume of the outstanding notes it checks over-expansion of bank credits and the export of gold when this should be prevented. The central banks of Germany and France use both these methods of regulating banking conditions in their respective countries. The Bank of England uses only the first method, namely, changing its discount rate and occasionally borrowing and locking up surplus bank credit; but this method alone has not proved always adequate in England and probably it would not prove adequate in the United States.

There are eminent bankers and statesmen who hold that we should establish in the United States a great central bank invested with powers similar to those exercised by foreign central banks. In the opinion of the writer, the establishment of such a bank would be impracticable and would be subject to grave objections for the following reasons:

The creation of a central bank involves something more than the concentration of the reserve money of the several banks in a common depository subject only to the order of the depositing banks. The mere custody of the reserve money by a central depository would accomplish no useful purpose. The purpose and the effect of concentrating the reserves in a central bank is to vest in the central bank a large amount of credit power based on the reserve money so obtained, and to enable the management of the bank to use this credit power, in its discretion, for the purpose of controlling, regulating and protecting credit conditions throughout the country. Concentration of bank reserves in a central bank with power to use these reserves to stop bank panics has been compared to concentration of the water supply of a city in a central reservoir under control of a proper fire department prepared to check a conflagration wherever it may break out; and it has been suggested that the American practise of letting each bank keep its separate reserve in its own vault is as ineffectual and as foolish as to let each householder keep his own share of the water supply of a city instead of combining the entire supply in a central reservoir. Although the illustration may be striking, it should not be overlooked that the analogy is imperfect. The reserves of

a central bank are not held merely as a means of stopping bank panics. They are held for banking purposes and they confer upon the central bank an enormous financial power. It is designed that the financial power so obtained shall be used by the management of the bank as a means of controlling and regulating interest rates and the expansion of bank credits throughout the country and in various sections of the country.

The territorial expanse of the United States is as great as that of all the countries of Europe combined. In Europe each country has its own central bank, but no one country of Europe can be compared with the whole of the United States. The business interests and financial resources of the United States are not centralized and cannot be centralized to the same extent as the business interests and financial resources of a single country of Europe. Only a central bank for the whole of Europe would furnish a fitting precedent for a central bank for the whole of the United States. Business conditions in the different sections of the United States vary widely, and there exists a strong and growing sectional feeling of opposition to the concentration of financial power in few hands or in any section of the country. Yet, inasmuch as New York is the principal financial center of the country, the principal sphere of activity of a central bank necessarily would be in New York and often in Wall Street, even though its nominal head office should be located elsewhere.

Though a central bank should be limited to dealings with other banks, its management would often be called upon to meet demands due to sectional self-interest and would often be subjected to unjust criticism due to the ignorance or prejudice of those unable to understand the complicated and difficult problems of finance. At times the south might want the bank to use its resources as a means of helping the planters to carry their crops of cotton aud tobacco so as to force higher prices. The west might call upon the bank to use its resources to enable the farmers to carry their stocks of wheat and corn. The large money centers might call upon the bank to ease the money market so as to enable bankers and brokers to carry stocks and bonds when speculation runs high at the stock ex-

changes. In every period of financial stringency and of high interest rates, whether sectional or general, it is likely that urgent demands would be made upon the managers of the central bank to relieve the situation by helping to expand bank credits still further. Sometimes it might be necessary to yield to such demands in order to prevent the occurrence of far-reaching financial troubles, but often the further expansion of credits would be wholly unsafe and it would be necessary to refuse the aid of the bank.

The prevailing rate of interest in some sections of the country is substantially higher than in others. Would the central bank establish a uniform rate of discount for all sections, or would its rate of discount in some sections be higher than in others? Either course would be subject to serious objections and would be likely to result in sectional feeling.

Under the central-bank system the safety and stability of all the banks in the country would depend upon the central bank and a suspension of the central bank would precipitate a financial catastrophe greater than any that ever has afflicted the country. It is obvious, therefore, that a central bank subject to political influences and disturbances would not secure the safety and stability of financial conditions but would be a menace. In view of the sectional questions with which a central bank would have to deal and in view of our political history and our political methods, is it reasonable to expect that the management and policy of such a bank would be kept out of politics? From the beginning of our government to the present day banking and currency problems have been treated as fit subjects of party politics. The first bank and the second bank of the United States both resulted in bitter political controversies. After the war, the greenback question was treated as a political question and the issue of irredeemable fiat money was approved by popular vote in a number of the states. A long and bitter political fight was waged in favor of the proposal to pay our government bonds in irredeemable paper currency. For twenty-five years the silver question was treated as a question of party politics, and twice the free coinage of silver became the dominant issue of a presidential campaign. In our

last presidential campaign the principal issue advanced by one of our candidates was the compulsory guaranty of bank deposits.

A central bank would not prove a safe and useful institution in the United States unless its management could always be kept in the hands of experienced and able men free from political influences and ambitions and enjoying the confidence of the people in all sections of the country. The problem of securing such a management has not been solved. It has been suggested that some of the directors should be elected by the shareholders of the bank, or by the national banks throughout the country, that some of them should be appointed by the government, and that the board should be made up of representatives of different sections of the country; but such a composite board probably would suit no one and surely would not prove efficient. A great bank must have a homogeneous board of directors who can adopt a consistent policy, and the practical management of the bank must be left to its executive head. The creation of a composite board consisting of representatives of diverse interests would not remove the diversity of interests and would not produce a compromise policy satisfactory to all. Control would pass to such of the different interests as might combine to form a majority and appoint the executive head of the bank.

The central banks of Europe became useful institutions because they were in harmony with the social conditions, the business habits and the political methods of the countries in which they were established. In European countries there does not exist the feeling of opposition to the centralization of financial power that exists in the United States, and in no country of Europe are banking and currency problems deemed fit subjects for party politics. The administration of a central bank in the United States would probably become the source of endless sectional differences and dissensions and would soon become a political issue. Though a central bank in the United States might be created by an act of congress, no act of congress could create the business conditions, the customs and the political methods and traditions which in foreign countries have made central banks safe and serviceable institutions.

DIVISIONAL RESERVE BANK PLAN

The objections to the creation of a single central bank for the whole of the United States would not apply to the creation of banks in different sections of the country, to act as sectional depositories of bank reserves and, in a measure, to perform the functions of sectional central banks. Such sectional concentration of bank reserves and sectional centralization of banking power would be both practicable and desirable. Even if it were proposed ultimately to establish a single central bank, it would be sound policy to proceed gradually instead of endeavoring to establish the central-bank system at a single stroke. By reason of the great expanse of the country and the diversity of business conditions in the different sections of the country, the details of the business of a central bank could not be managed at a central office. It would be necessary to establish branches in the various sections of the country and to delegate to the managers of these branches a large measure of discretionary power, the management at the central office exercising only general supervision and control. Centralization of power in the bank would thus be accompanied by a measure of decentralization in its management necessitated by the practical conditions existing in the United States. In the opinion of the writer, it would be advisable to commence with the creation of divisional reserve banks and to let these divisional banks form a central association to control and regulate certain matters of common interest. If, ultimately, it should be found practicable and desirable to establish a single central bank, the several divisional banks could be made its branches. The following plan is suggested:

Suitable geographical divisions should be prescribed by law for the purpose of establishing divisional reserve banks. The national banks in each division should be required to form a divisional reserve bank, each of the several banks becoming a shareholder and contributing a prescribed per cent of its own capital to the capital of the divisional reserve bank. The shares in the divisional reserve banks should not be transferable, but, upon the dissolution of a national bank, its share in the capital of the divisional reserve bank of which it is a member should be repaid to it.

Each national bank should be permitted to keep its reserve either in its own vault or as a deposit in any of the divisional reserve banks, and no deposit in any bank other than a divisional reserve bank, should be counted as part of the reserve of a national bank. Probably it would be advisable to permit the divisional reserve banks to allow interest on the deposits of other banks, but the association to be formed by the divisional reserve banks should have power to fix the maximum rates of interest that may be allowed on such deposits and to prescribe uniform terms and conditions to be observed by all the divisional reserve banks.

The divisional reserve banks should always keep ample reserves of lawful money and they should be permitted to invest their resources only in short-time commercial paper bearing the endorsement or acceptance of one of their constituent members, or of an approved bank or banking institution and generally they should be managed in such manner as to enable them at all times to furnish currency or credit to their constituent members by paying checks drawn upon their several deposit accounts, or by rediscounting good commercial paper bearing their endorsement or acceptance.

The several divisional reserve banks should form a central association with power to prescribe uniform rules and regulations for the conduct of their business, and the association also should have power to make such arrangements as may be found expedient for the purpose of facilitating exchanges between the different sections of the country. In the election of officers of the association each individual reserve bank should be entitled to cast a number of votes proportionate to its capital.

In order to place financial conditions in the United States upon a sound basis, it is necessary to stop any increase of the present inelastic issue of national-bank notes and to substitute for at least a part of these notes an issue of notes that can be contracted or enlarged from time to time in accordance with the requirements of financial conditions throughout the country. The power from time to time to control and to regulate the volume of outstanding bank notes should be vested in the association of divisional reserve banks, in conjunction with the secretary of the treasury.

For the purpose of providing an elastic issue of bank notes, subject to intelligent regulation and control, the association formed by the divisional reserve banks should be authorized (subject to conditions and within limitations to be prescribed by law) to deliver to each divisional reserve bank, upon its application, circulating notes of this bank, bearing the guaranty of the association, upon deposit with the association, as a redemption fund for their payment, of a sum of lawful money equal to a prescribed per cent of the notes. The notes should be payable by the issuing bank at the office of the association or at any of the divisional reserve banks, suitable arrangements being made, by rules of the association, for the reimbursement, with costs of exchange, of any divisional reserve bank redeeming the notes of another bank. The redemption fund of the issuing bank would be applicable to such reimbursement.

The association, with the approval of the secretary of the treasury, should have power from time to time to increase or to reduce the prescribed percentage of the redemption funds to be deposited and kept up by the several banks for their outstanding notes. By increasing the required percentage of the note-redemption funds, the uncovered amount of the notes and the aggregate volume of the outstanding currency could be diminished. By reducing the required percentage, the volume of the available currency would be increased and the banks would be enabled, without diminishing their reserves, to meet a demand for more circulating currency. The association, acting in conjunction with the secretary of the treasury, could thus control and regulate interest rates and the expansion of bank credits and could influence the international flow of gold available as bank reserves.

Each divisional reserve bank should be required at all times to maintain at the prescribed precentage its redemption fund for the payment of its outstanding notes, and the notes should be made a first charge upon the assets of the issuing bank. In addition, they would be secured by the guaranty of the other divisional reserve banks. A safety fund should be created by requiring each bank to pay semi-annually a small charge based upon the average amount of notes it has outstanding. The

several divisional reserve banks would incur practically no risk by reason of their guaranty of the notes of the other banks, and the notes would be as safe as any bank notes in the world.

Each divisional reserve bank should be required to pay quarterly a tax computed according to the average amount of notes it had outstanding in excess of the average amount of lawful money in its note-redemption fund. In other words, the tax should be computed on such part of the notes as is not covered by a deposit of lawful money and is based on the credit of the banks. It is suggested that the tax be at the rate of 2½ per cent per annum upon this amount.

By authorizing the national banks to issue circulating notes against United States two-per-cent bonds and by practically guaranteeing payment of the notes, the United States obtained an artificial price for its two-per-cent bonds. To take away the present right to issue bank notes against these bonds would greatly impair their value and would be unjust to the bondholders, unless due compensation were made. As the proposed tax on the notes of the divisional reserve banks would be two per cent per annum higher than the tax on the present bond-secured notes, the United States, without incurring any loss could preserve the value of its two-per cent bonds by agreeing to pay a higher rate of interest on these bonds when liberated by the conversion of bond-secured notes into divisional reserve-bank notes. It is suggested, therefore, that, as a measure of justice and as an inducement to secure the conversion of the bond-secured notes into individual reserve-bank notes, the government should agree that upon the issue of the divisional reserve-bank notes it will pay three-quarters of one per cent additional interest on such of the two-per-cent bonds as shall not be held by the government as security for bond-secured notes. United States bonds hereafter issued should not be made the basis for the issue of bank notes. The United States should not sacrifice the stability and safety of financial conditions in order to obtain an artificial price for its bonds, but, like other nations, should sell its bonds on their merit as investments.

In a volume entitled "*The Banking and Currency Problem in the United States*," published in 1909, the writer suggested the

formation of divisional reserve banks as above outlined and described in detail a plan for the formation of a note-issue association by all the national banks. On further consideration, it appears to the writer that it would be a better plan to allow only the divisional reserve banks to form a note-issue association and to issue notes, the divisional reserve banks thus being enabled in the regular course of the banking business to furnish currency to the several banks as required. Many of the provisions of the plan described in the volume above referred to would apply equally to the plan now proposed.

THE NECESSITY FOR A CENTRAL BANK[1]

GEORGE E. ROBERTS

Director of the Mint

THERE is no great difficulty in locating the weakness of our banking system. Like every advanced country, we do our business very largely by the means of bank credits, and, notwithstanding the abundant resources of the country, notwithstanding the ample assets of the banks themselves, we have no means of supporting these bank credits in times of strain, or even giving them the elasticity required to meet the ordinary fluctuations of business.

According to the last report of the comptroller of the currency we had at the time it was compiled $14,000,000,000 of individual deposits in the banks of the United States and only about $1,400,000,000 of cash in the banks, or about one dollar in cash for each ten dollars of practically demand liabilities. And this ought to be cash enough. This margin of 10% is as much capital as needs to be tied up in reserves. The trouble is that it is not used to the best advantage.

This fund of cash is so divided and scattered that all confidence in its effective use is lost and its value for the support of our credits is frittered away. It is as though an army appointed to defend a city should be divided up with a certain number of men on each block, without organization or common commanders, each squad unable to give support elsewhere. When a crisis threatens, the system pulls apart and breaks down by its own efforts for self-protection, and that just at the time when it should be a source of strength and support to the business community.

It is useless in planning for the future to expect that the average banker will materially change the policy upon which he

[1] An address delivered at the anniversary dinner of the Academy of Political Science, November 11, 1910.

conducts his business. There are over twenty thousand independent banking institutions in this country, and competition fixes within narrow limits the conditions under which the business must be carried on. Competition is so keen, the banks pay so much interest on deposits, and do business under such a burden of expenses that they are practically compelled to keep their funds closely employed. There is no adequate reserve free to take care of exceptional demands or even to care for the ordinary seasonal fluctuations. We need more money and more bank credit in the last three months of each year than in any other season, but no one who is in this competitive circle can afford to keep capital idle for nine months in order to use it the other three, particularly if he is paying interest on it. It is because of this narrow margin of reserves that money so easily becomes uncomfortably tight. When the banks of the central-reserve cities have an average reserve of 26 % money is easy, and when it gets down to 24½ % money is tight.

We are just closing a year of much anxiety over banking conditions. Last spring it was reported that the banks were badly over-loaned and much apprehension was felt as to how they would come through the fall. And yet the difference between their cash reserves last spring and the spring before was a very small percentage of their liabilities.

The final banking reserve of the national system is held by the three central-reserve cities, which are required by law to carry cash reserves of 25 %. Their figures for the spring statements of 1909 and 1910 were as follows:

	1909	*1910*
New York	25.68	25.76
Chicago	26.16	23.35
St. Louis	25.44	22.36

The cash reserves of the reserve-city banks and country banks did not vary in greater proportions.

In the last ten calendar years, including 1910, there have been 49 officially-published statements of the condition of national banks. There were but 14 statements in which the central-reserve banks averaged above 26 % and only six in which the

average was above 27 %. It was pointed out last spring with some alarm that the loans and discounts of the national banking system were higher than they had ever been before, but the fact is that there have been but five published statements in the last ten years which do not show the loans and discounts higher than they had ever been before. They are up to the limit practically all the time. We never have any surplus reserves worth mentioning. We never have any considerable margin of unused bank credit. Come what may, we never have any important reduction of the volume of loans. Under all the stress of panic in 1907 and the depression of business that followed, the national banks as a whole succeeded in reducing their loans only about 5 %. There was considerable shifting of loans among the banks, but not much reduction in the aggregate.

The truth is that in practise our bankers have only a very limited control over the volume of their loans. They find themselves obliged to take care of their responsible customers whose accounts are desirable or see them go elsewhere, and with this country developing and business expanding, as is always the case, their loans keep up close to their available resources. It is not the fault of the individual bankers; it is inevitable under the system; it is in the lack of a central reserve fund outside the competitive circle. In other countries the responsibility of carrying adequate reserves is definitely fixed upon a great central organization and it is given special powers to deal with the task.

Fortunately, we have in the United States a great store of gold that may be used to create a fund of credit. On the first day of this month the United States treasury held $900,000,000 against the same amount of gold certificates. This is the greatest and the most ineffective gold reserve in the world. I invite your attention to the difference between the usefulness of this reserve and the next largest in the world, that of the Bank of France. Both are acquired in the same way. When gold is imported into France it goes into the bank in exchange for its notes; when gold is imported or produced in the United States it goes into the treasury in exchange for certificates. The public everywhere prefers paper to coin and an institution

that is given the sole power to issue notes against gold becomes the natural custodian of the country's stock of gold. The notes of the Bank of France come very near to being gold certificates. 70 % of the outstanding circulation of the Bank of France is covered by gold, and over 80 % is covered by gold and silver. But although the note circulation of the bank varies but little from the metallic stock, the fact that it is flexible and adaptable to the needs of the country for currency, enables that metallic stock to afford complete protection to the entire credit system of France. On the other hand the fact that our gold certificates are simply warehouse receipts prevents our $900,000,000 from being used as a central fund for credit at all.

We have this store of gold, and upon it can be built an institution as powerful for the protection of American credit as the Bank of France has been for the protection of French credit. To accomplish this end the gold must be removed from the treasury to the possession of a responsible organization over which the government and the banking system of the country have joint control. Let the notes of such an institution be made good for all the purposes for which gold certificates are now good, and be put into circulation in exchange and substitution for gold certificates. This will bring the new institution into possession of the treasury certificates, and as they are received they may be presented for redemption. By this process the gold reserve of $900,000,000 will be transferred from the treasury to the new organization. With $900,000,000 of gold in its vaults and $900,000,000 of notes outstanding it will be able in its discretion to issue say $450,000,000 of additional notes and still have a reserve of 67 %, and the ability to do this will afford ample protection to the banking and business situation in this country. In short, the transfer of ownership and control from the thousands of scattered holders of gold certificates to one representative, responsible organization will endow this reserve, now inert and useless, with all the potency and effectiveness that have always belonged to the reserves of the Bank of France.

Such an institution, although analogous in some respects to the Bank of France, need not be like it in all respects. It need not receive deposits from individuals or even from banks. The

deposits of the Bank of France amount in all to only about $140,000,000, including the government funds. The ability of the bank to protect the credit situation is not derived from its deposits, but from its stock of gold and its powers of note issue.

The main purpose with us in securing a central institution is to consolidate our gold reserve in responsible hands where it can be used to safeguard the entire banking situation. Another important function, however, would be that of serving as the fiscal agent of the treasury and handling the public funds. There is no responsibility that involves the secretary of the treasury in more annoyance and criticism than the arbitrary distribution of surplus revenues among the national banks. There is no feature of the situation that is more objectionable than this, and all the other plans for currency reform are defective in that they leave the relations of the treasury to the banks unchanged.

It not only is not necessary to have the central institution hold the reserves of the local banks over the country, but it is not desirable to have any such concentration of loanable funds. They have a more widespread and natural distribution now. It is not desirable to force any important displacement of funds or to disturb the relationships that now exist between the country banks and their city correspondents.

It is not necessary or desirable that the country banks desiring to rediscount paper should generally apply direct to the central bank. It would be better for them to get such accommodations from their regular city correspondents with whom they have daily interchange of business, to whom they are more intimately known and from whom they would perhaps be able to borrow under more flexible rules. The essential thing is that the several hundred banks of the reserve-city class shall always be able to get help when they need it. If they get it, competition will compel them to pass it on to their customers. These reserve-city banks will serve as channels through which the central reserve fund will be reached from all sections of the country.

It is not necessary to retire the outstanding bond-secured circulation of the national banks, although it would be desirable that government bonds in the future be placed on an investment

basis. There are serious objections to depriving the outstanding government bonds of the circulation privilege, and it would not be desirable to have to fill the vacuum that would be created by the retirement of $700,000,000 of bank notes.

It is not necessary to retire the United States notes. The aggregate of these notes and silver certificates outstanding in denominations above ten dollars is now less than $100,000,000 and steadily diminishing. The United States notes and silver dollars represent past mistakes; we would not provide for them if we were planning an ideal system, but they are no longer a menace to the treasury and need not be dealt with now.

It is unnecessary, in order to have a central note-issuing institution, to begin with an elaborate and complete organization. On the contrary, it would be a mistake to burden it with heavy expenses at first. It should be allowed time to develop its full functions and to articulate itself with the banking system by growth. The plan should be fundamentally sound, however, adaptable to expansion and to all the functions and responsibilities that may come to such an institution. It seems to me, therefore, that instead of being a mere advisory or administrative board, on the clearing-house plan, it should be a distinct and independent entity, able to do business on its own responsibility. A permanent institution that is to lend credit should have a paid-up capital of its own and accumulate a surplus beside, instead of doing business on the assessment plan, and certainly it is stating a primary truth to say that an institution which is to issue the paper currency of the country should have a gold reserve. I cannot conceive of such an institution playing its full part in the protection of the country's gold reserve and of the national credit without either capital or reserves of its own.

The central institution should be planned to unify and strengthen and supplement the existing banking system. While the government should have intimate supervisory relations to it, the active direction of its affairs should be in the hands of representative bankers from all sections of the country. One member from each of the thirty clearing houses leading in volume of clearings would give an admirable organization. There is no more reason to suppose that such a body, elected from all sec-

tions and drawn from both political parties, would become involved in partisan politics than there is to expect our clearing houses to become involved in politics. It is impossible, moreover, to believe that a body of men thus selected to serve in a representative capacity, personally identified with the localities from which they come and discharging their responsibilities under the scrutiny of the whole financial world, would permit the institution to be used to serve sectional and private ends. There is little in the history of such trusts, in this or other countries, to warrant such suspicion. Experience has shown that where responsibility can be definitely fixed and surrounded by full publicity, large powers may be safely granted.

There is little reason to apprehend that under such management the resources of the institution would ever be loaned to support stock-market operations, but that evil could be effectually guarded against by a proviso in the law that no part of the note issues should ever be based upon anything but gold and short-time commercial paper. An institution that could always be relied upon to take current commercial paper bearing well-rated names from the local banks of the country and give lawful money for it, would not only afford protection against panic but would enlarge the market for that class of paper and give greater mobility to our banking capital.

The objection that a central organization of this kind would create a centralized power and that this power might be abused is raised at every step in the higher organization of society. It is impossible to create any new powers, no matter how necessary or beneficial, without at least a theoretical possibility that those powers may be abused. But as population increases, as civilization develops, and as society becomes more interdependent, we are bound constantly to provide a higher and more complex organization. The beginnings of our political organization were in the old town meeting of New England, but whether we like all the performances of our state and national governments or not, it is certain that we cannot govern a nation like the United States with nothing but town meetings. Before we had any railways we had no need for an interstate commerce commission, a body to which we have now confided a very high degree

of centralized control. The whole problem of railway control is incidental to our industrial and social progress.

Finally, a system of thousands of scattered and unrelated banking institutions is unequal to the responsibilities which in a country of such vast industrial and commercial interests as ours are necessarily laid upon the banking system. A higher organization of our banking power is absolutely required and somehow it will be supplied. There are going to be great central banking institutions in this country whether we make special provision for them or not. The banking business is not going to stand still while development goes on in all other lines. Unification and organization will go on in the banking business as elsewhere; the question is, shall we recognize the tendency and the necessity for it, shall we shape its development, shall we supply the means to make it most effective and serviceable, shall we keep our hands on it and regulate it, or shall we permit it to develop without direction or control?

HOW TO PREVENT CASH SUSPENSION BY BANKS[1]

ANDREW JAY FRAME

President of the Waukesha National Bank

IN 1873, 1893, and 1907 the banks of New York, the financial center of the United States, suspended cash payments for a considerable length of time, throwing labor out of employment and paralyzing general business. In European countries, on the other hand, general bank suspensions have been unknown for more than half a century. What is the cause of this striking difference? Europe has practically abolished the issue of currency by banks generally, except for one great central bank in each nation, while we have maintained 7,000 separate banks of issue, each undertaking to keep up its own cash reserve. The world's experience indicates clearly that for relief from our barbarous and intolerable banking and currency conditions we must look to the operations of a national reserve bank.

Let us compare briefly European and American conditions as they exist today. The progressive nations of Europe issue currency chiefly through great central banks, whose immense coin reserves make their notes practically gold certificates payable on demand. They are practically banks of issue and not of deposit. The problem of elasticity is solved by permitting the banks to put out relatively small uncovered issues upon conditions that insure their automatic retirement as soon as the extraordinary demand for money ceases. The following table gives approximately, in millions of dollars, the capital, circulation, deposits, specie holdings, and loans of the great European banks of issue:

[1] The substance of an address delivered before the Colorado Bankers' Association, contributed as a part of the discussion at the National Monetary Conference, Nov. 11, 1910.

	Capital	Circu-lation	Deposits	Total specie	Loans
Imperial Bank of Germany . . .	29	413	149	211	345
Bank of Austria-Hungary . . .	24	376	31	299	189
National Bank of Belgium . .	10	136	16	24	124
National Bank of Bulgaria . .	2	8	17	7	11
National Bank of Denmark . . .	7	34	1	27	13
Bank of Spain	29	305	134	200	154
Bank of Finland	2	18	4	5	11
Bank of France	35	1,008	189	903	255
National Bank of Greece . . .	4	23	23	1	21
Bank of Italy	29	213	90	152	91
Bank of Naples	12	66	16	32	34
Bank of Sicily	18	14	10	9	10
Bank of Norway	3.5	21	1	8	12
Bank of the Netherlands	8	113	2	57	59
Bank of Portugal	15	74	29	13	26
National Bank of Roumania . .	5	43	.	15	25
Imperial Bank of Russia	28	599	116	451	208
Bank of England	71	146	280	187	156
National Bank of Servia	1.1	6	1	4	2
Royal Bank of Sweden	12	52	12	20	37
Total, twenty banks	344.6	3,667	1,121	2,625	1,783

Comparing these European banks of issue with the national banks of issue in the United States, we get the following results, again expressed in millions of dollars:

	20 European Banks	7,007 U. S. National Banks
Deposits	$1,121	$7,098
Circulation outstanding	3,667	667
Total demand liabilities . . .	$4,788	$7,765
Coin reserves held	2,625	628
Percentage of reserves to demand liabilities	54	8

Note that the great issuing banks of Europe hold 54 % of demand liabilities in coin, as against only 8 % in the United States.

Mark also the fact that the 2,525 millions of dollars in coin reserves of those banks will liquidate more than twice over the 1,121 millions of deposit liabilities, a large part of which are government deposits, while the balance consists of reserves of

the non-currency-issuing banks. Distrust of the great central banks in Europe is unknown, therefore the immense cash reserves are not called upon either to pay depositors or to redeem note issues. The cash reserves are used to relieve, in times of stress, the non-currency-issuing banks with small cash reserves and large deposit liabilities. Clearly, these central banks do not monopolize the general banking function as many suppose. The small number of outside banks now allowed to issue currency are unimportant. In each country one great issuing bank acts like the governor of an engine, expanding and contracting its issue automatically without engendering distrust, because it has immense coin reserves and quick assets. Even Japan and Switzerland have lately adopted the same method of relief. The great banks, with immense capital, great coin reserves and small deposit liabilities, easily expand currency issues to meet seasonal demands, and under panic conditions "discount freely to all solvent parties"; they also furnish extra cash to banks to meet the insane demands of frightened depositors, thus preventing the general paralysis of trade and industry so destructive to labor and capital alike which is inevitable if forced liquidation takes place, as occurred here in 1907.

If the United States in 1907 had had a large central bank of banks, I am firmly convinced that notwithstanding the colossal pyramid of credit which we had been building we might have been let down by easy stages, instead of falling off from the top of the structure with a jar that shook the whole commercial world. If, on the other hand, Congress had authorized national banks to issue uncovered credit currency as some have advocated, I am equally convinced that when the panic of 1907 struck us our troubles would simply have been doubled, for we should have entered upon the critical period with a credit inflation even greater than that which we actually did face. What is "uncovered currency"? It is currency issued by banks in excess of coin held on hand. For the past three years the uncovered currency of the three leading nations abroad has been as follows: Great Britain, $125,000,000; France, $125,000,000; Germany, $200,000,000; total for the three, $450,000,000. The uncovered currency of the United States of late years has

been double this total, or $900,000,000. Our 700 millions of silver exceed the uncovered currency of the above three nations combined; as this great sum is over half fiat it ought to be counted as partly uncovered currency.

Such vast quantities of uncovered currency and semi-fiat money have undoubtedly added slightly to the burden of high prices in the United States. They mean inflation without corresponding contraction. The world's gold production of the past thirty years has exceeded that of the previous four hundred; this is doubtless another contributory cause. In my judgment, our wonderful energy and prosperity, coupled with the great underlying law of supply and demand, is the principal cause of high prices, but currency inflation is accessory thereto. Let us therefore eliminate currency inflation by adopting the European method of concentrating reserves and note-issuing powers.

If we examine the foreign investments and trade of the four countries mentioned above, a further interesting comparison emerges. It is estimated that the people of Great Britain have invested abroad $15,000,000,000; France, $7,500,000,000; Germany, $5,000,000,000. On the other hand our foreign debts probably exceed our investments abroad. The latest annual trade statistics show, in millions of dollars:

	Imports	Exports
Great Britain	2,887	1,836
France	1,176	1,017
Germany	1,980	1,607
Total for the three	6,043	4,460
United States (1909)	1,312	1,663

It will be seen from the foregoing that with such vast sums due to Great Britain, France and Germany on investments abroad, the raising of interest rates in any one of them automatically relieves shortage of funds in that nation, because investments abroad that are continually falling due are called in, instead of being renewed. Also, as bills of lading attached to time drafts on foreign imports and exports aggregating over 10,500 millions of dollars per annum or approximately 900

millions per month, are sought by banks all over Europe, these bills immediately move to the market where the rate for money is lowest, and thus funds flow freely from the easy money markets of Europe to the tight ones. The raising and lowering of interest rates thus automatically relieves pressure in Europe in normal periods, and the central banks issue extra currency in times of extraordinary demand.

The United States is not now a creditor nation, although she has made strides in that direction during the past twenty years. Our foreign trade is only 3,000 millions of dollars per annum, which in comparison with the European countries named, affords but partial relief on documentary bills of lading. The Aldrich-Vreeland bill, though perhaps of material value to us in times of crisis, does not satisfy the demands for seasonal currency. All these are reasons why the United States should have a national reserve bank as a preventive of trouble. Europe has attained elasticity by an evolutionary process, without producing distrust or inflation. Let us adopt the good features of her system and reject the bad ones. Centralized reserves and note issue we need; to branch banking I am unalterably opposed.

As an alternative to a central bank, some eminent writers advocate a zone system of note issue, controlled by boards in various sections of the country. I fear that they have not carefully considered the great cost of maintenance, nor the fact that the operation of such a system is not automatic. Is there not fear also that it would be the forerunner of a general branch-banking system?

Professor O. M. W. Sprague, of Harvard University, in a series of articles in the *Quarterly Journal of Economics* (1909–1910), points out a method of attaining elasticity and avoiding cash suspension in the United States. He believes that banks should pay no interest on deposits by other banks, and that they should at all times hold larger cash reserves than at present in order to meet extra demands in abnormal periods. Though agreeing with the major part of Professor Sprague's able argument, I am forced to disagree with him on both these points. However desirable it might be to prevent the banks from paying interest on bankers' balances, the experience of a half-century has proved it impossible.

In the second place, the banks of Great Britain, France and Germany, excluding the central banks of issue, hold less than half the cash reserves held here. Why increase the idle capital to be held for 10 or 20 years waiting to be used for perhaps three months when panic threatens?

The report of the comptroller of the currency for 1909 gives the cash held by all the banks in the United States (in fact largely in the reserve cities) as about $1,450,000,000. 50 % increase would add $725,000,000; $725,000,000 idle capital at 5 % means a loss per annum of $36,250,000. For 20 years it would mean $725,000,000. This is a pretty penny to pay for a cure that would probably fail to work when panic threatened because at such a time each bank, just as it does now, would hold tenaciously to its cash; self-preservation is the first law of nature.

Such a plan would impound cash that ought to be in use, and it would be a great hardship to the stockholders. Besides, in obtaining the extra gold we should disturb the world's financial equilibrium.

If concentrated cash reserves enabled European banks to help us in 1907 with $100,000,000 of gold, when every student knows that general bank reserves there were much less than here, why should we stand continuous heavy losses on increased scattered reserves? Why import vast sums of gold, instead of consolidating part of our reserves into a central reserve bank? Such a bank by increasing its circulation temporarily can aid any section of the country in the day of trouble, without loss or material cost to any interest. It thus avoids the large expense of foreign transfers, which seriously unsettle the world's exchanges, and it also obviates the calamitous results of suspension of cash payments. A bank of issue like the Imperial Bank of Germany avoids useless lock-up of cash and automatically expands and contracts its issues to meet emergencies whenever and wherever they arise. This is not theory. It is demonstrated fact. While we were floundering in the slough of despond in 1907, though Germany was in a no less expanded condition as to credit than we were, yet the extraordinary issues of the great Imperial Bank, carrying a 5 % tax, were generously

loaned to solvent parties at high rates of interest, and thus relief was brought to German business interests, which did not suffer the collapse that followed in the United States.

Why not adopt the method proved by the world's experience to be the best? Branch banking we should reject as entirely unnecessary and unsuited to our conditions. What we need is a national reserve bank, and I submit the following tentative suggestions for its organization.

1. Capital. Not less than $100,000,000.

2. Ownership. To popularize the measure, receive voluntary subscriptions from national and state banks in sums of not less than 5 % or more than 10 % of the capital of each. Any stock not taken voluntarily by banks, should be offered to the public, but in no case should any bank or individual acquire or hold more than one one-thousandth part of the entire stock, or less if thought best, in order to prevent monopolistic control. The government ought not to contribute, because without such contribution political interference would be practically eliminated.

3. Management. There should be a board of twenty-five directors, without pay, except expenses and $10 to $25 a day for attending quarterly or semi-annual meetings. Six directors should go out each year, making the term of service four years. The secretary of the treasury should be the twenty-fifth director.

4. Business. If it is thought best not to abolish the present United States treasury system (probably an impolitic thing to attempt to do) then all surplus funds of the government in excess of normal daily requirements might be deposited in the national reserve bank. The banks of the three central-reserve cities might also deposit part of their required cash reserves. All should be counted as reserves just as under the present law, but no interest should be paid on deposits of any nature, thus practically eliminating competition with existing banks. The bank should have the right to issue $100,000,000 of untaxed notes, any excess to pay 5 % on conditions similar to the Imperial Bank of Germany.

5. Loans. Existing banking privileges should not be disturbed. I see no reason why the reserve bank should not purchase and hold its full capital and surplus, also part of its

untaxed currency issues in United States, county or city bonds, such as are permissible under the New York and Massachusetts savings-bank law. Generous reserves should be held against deposits and the balance loaned on quickly-convertible paper. No loans should be made on stocks as collateral, thus giving no aid to stock gambling. As for elasticity, the untaxed currency could be used to move the crops and the taxed to meet abnormal pressure. If the reserve bank made extra loans to relieve pressure, their repayment in reserve-bank or other notes would effectively and automatically impound excessive issues without any expensive redemption machinery whatever, thus preventing inflation and its concomitant evil, the exportation of gold in accordance with Gresham's law.

6. Limitation of earnings. A surplus fund should be gradually accumulated up to 20 % of the capital, and semi-annual dividends declared. One-half of the excess over 4 % dividends should be paid into the United States treasury, until 5 % or 6 % was paid to stockholders; thereafter all excess profits should be covered into the United States treasury. Such government profits might be in lieu of any taxation upon the bank. These conditions would insure dividends and government profits from the start.

Such a reserve bank ought to be confined to dealings with banks alone. No branches are needed. If we had had such a bank in 1907, solvent banks in New York having ample collateral could have obtained cash through discounts at the bank of issue. If so, such notices as "No cash will be paid on balances," would not have been flashed to the country. The simple philosophy of "You got 'em, I no want 'em," would have applied and general suspension would have been avoided. What we need is a reservoir from which to quench the conflagration in its incipiency. We want a bank, not to monopolize the necesssary banking function or enter into competition with our splendid independent banking system, but to be our servant in time of trouble, to prevent cash suspensions with their paralyzing train of evils.

It is objected that "all banks would be compelled to rediscount their paper with the national reserve bank." The Wau-

kesha National Bank has had no occasion to rediscount for over thirty years, except in panic periods to prevent cash suspension. Even in 1907 it paid cash on all demands. The 14,000 millions of dollars on deposit in the banks of the United States today are evidence that surplus capital is abundant, and that most banks need small rediscounts under normal conditions. As conclusive proof, in 1907 the loans, discounts, bonds, and other like assets held by all the banks of the country aggregated about 16,000 millions of dollars. The total rediscounts and money borrowed by all the banks approximated about 150 millions of dollars, or less than 1 % of the total, notwithstanding the fact that most of the central-reserve-city banks offered such accommodations to their country correspondents.

In the new west and south, where surplus capital is not abundant and crops are largely confined to one staple, some banks need assistance in the fall to move the crops, but in the greater part of the country, where crops are diversified and surplus capital predominates, bankers rarely know when crops move, the cry to the contrary notwithstanding. There would be no fear of the central bank monopolizing country or city bank balances, because it is conceded that the central bank would not be allowed to pay any interest on balances, and thus the existing conditions between country and city banks, the latter paying 2 % on balances, would be voluntarily maintained.

Lastly, some people honestly fear monopolization, and they cite the old United States Bank, which met its doom in 1836, as an example. So far as I know, all advocates of a central bank are opposed to an institution similar to the old United States Bank, which had branches in nearly all the large cities of the country and threatened to monopolize the general banking function of taking deposits and making loans, as well as that of issuing currency. That bank was justifiably legislated out of existence. The kind of bank now suggested is one acting only as a safety valve, limited in its general banking function, but principally acting as servant to our splendid independent banking system, and not as its master, a bank to assist other banks in moving crops, if necessary, and to prevent solvent banks from cash suspension in time of panic. With practical limitations, monopolization would be unprofitable and practically impossible.

Solvent farmers, merchants or manufacturers with ample assets continually find ready assistance at the banks, that bills due may be promptly honored and high credit maintained. The bank is their reservoir in the day of trouble. Why should not all solvent banks, national, state and others, with portfolios filled with good assets, have some reservoir where cash could be had quickly when distrust threatens, when reserves are limited, and when frightened people are clamoring for their deposits? Why should the banks not be in a position to loan to all solvent parties, that payrolls be not discontinued or the wheels of commerce stilled? Why should the banks in Milwaukee, Chicago and New York, which in 1907 held $300,000 of the reserves of the bank of which I have the honor to be president, be denied the privilege of such a reservoir of cash, that our reasonable cash requirements be promptly met? Why should we be floundering about under general cash suspensions, as in 1907, at a cost of thousands of millions of dollars to labor and capital alike, when relief could be had through a national reserve bank?

I am confident that such a bank could be chartered free from political or monopolistic control. It would prevent cash suspensions, prevent high interest rates, prevent hoarding of cash at all times. It would work quietly and automatically, whereas relief through clearing houses has a tendency to breed distrust through exciting general public comment. Is it not wise to adopt that method which is simple, direct and automatic in its action, and which is approved by the experience of nearly all the progressive countries of the world?

PRINCIPLES THAT MUST UNDERLIE MONETARY REFORM IN THE UNITED STATES[1]

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PANICS are acute infections of the body economic by the germ distrust. Varying causes may bring about a crisis, which always precedes a panic, but the degeneration of a crisis into a panic is invariably an epidemic of distrust.

Every modern financial system is built on confidence, on credit. Our whole financial structure has become a system of clearings of credit, a system of substituting the token of confidence for the payment in actual cash.

Against the immense amount of demand obligations payable by rights in cash at the option of the payee there is only a comparatively small amount of actual gold. The very moment that a general hesitation sets in to accept this clearing by credit, the very moment that a simultaneous request begins, calling for actual cash in payment of all demand cash obligations, a general collapse becomes inevitable. A modern system must be so constructed that a demand for cash caused by distrust shall be absolutely impossible, or the system is not safe, and the mere knowledge of its being unsafe will precipitate a panic whenever an acute crisis arises.

If a small fire starts in an old-fashioned wooden theater a catastrophe is unavoidable. The mere fact that everybody knows that he is in a fire trap and that the combustion will spread rapidly, brings about a panic with all its horrors of unnecessary loss of life and property. In a modern fireproof building the fire will be quickly extinguished: there will be less food for the flames, there will be a possibility of fighting them, and the feeling of safety will allow everyone to save himself

[1] A paper presented at the meeting of the Academy of Political Science, November 12, 1910.

without trampling his neighbor to death or blocking those who also want to escape. It is a critical situation, a crisis, which, thanks to modern construction and wise precaution, does not degenerate into a panic.

Why has our building proved a fire trap and why is Europe's structure safe? Why does Europe's system guarantee the avoidance of panics and why does ours inevitably insure their recurrence from time to time? It is from this point of view that all the material published by the National Monetary Commission ought to be studied and it is from this point of view that the final question of monetary reform must be approached.

Let us then lay down as the first principle which must guide all our further investigations, that no system which is by universal acknowledgment theoretically defective will ever stand the strain of an acute crisis without that crisis degenerating into a panic. It is of no avail to patch up a theoretically wrong system and to strengthen it by some practical measures which give a false assurance of safety. When the storm comes, fear and doubt will begin to creep in through the loophole which logic, then wide awake, will drill, and once well-founded distrust begins, the system loses its basis, which is confidence, and must collapse. Not every measure that is right in theory is good in practise; but what is wrong in theory can never be right in practise.

Let us lay down then the second fundamental principle, that a financial system which scatters and decentralizes reserves, making them unavailable and insufficient in case of need, is fundamentally wrong and defective.

In a modern system, constructed on credit, cash must be centralized as far as possible into one big reservoir, from which everyone legitimately entitled to it may withdraw it at will and into which it must automatically return whenever it is not actually used.

In order to achieve this there must be two guaranties: one, that the central reservoir is safe and strong enough to supply all the cash that may be required from it, so that nobody will hesitate to let it become practically the sole trustee of all cash; and the second, that every bank depositing its cash or allowing

it to stream into the central reservoir will be sure to have the means at its command with which to acquire the cash that it may legitimately have to demand.

In order that cash should always return into the central reservoir, cash must become less valuable than the interest-bearing right to command cash, which is embodied in a legitimate bill of exchange. To keep large supplies of explosives under our roof is a source of danger; the safer a community the less is the necessity for us to be provided with ammunition. It is the same with large cash holdings.

Individuals, corporations and banks alike in a modern household must try to reduce the holdings of cash to a minimum, because cash holding entails the risk of loss and robbery and because a hundred dollars carried in the pocket for a year, or needlessly hoarded, means a loss of four dollars. Instead of accumulating cash, the desire must prevail to dispose of it as quickly as possible and to turn it into cash credits or interest-bearing quick assets.

This leads to a clear division of the functions of the central reservoir and of the general banks. It is the function and duty of the general banks to act as the custodians of the people's money and deposits and to employ the same in conformity with the principle that a bank must not give any other credit than it receives, which means that against all demand deposits it must be able to provide at all times payment by cash credit. It is the function and duty of the central organ: first, to watch that the right proportion be maintained between all demand cash obligations of the country and the actual cash at its disposal; second, to guarantee that every legitimate cash credit can be transformed at will into actual cash; and third, to establish so firm a confidence in its ability to perform these duties that cash will never be withdrawn to be hoarded, but will always return promptly into the central reservoir, leaving in the hands of the banks and the public only the amounts absorbed by actual circulation or taken for gold exports by creditor nations.

From these different functions of the central banks and the general banks, there follow as a logical consequence the different elements necessarily inherent in their reserves. The central

bank, having cash obligations, must have the strongest possible reserve of cash and quick assets payable within a short time. The general banks, having obligations payable only in cash credit, need have reserves only in cash credit and in quick assets, convertible at all times into cash credit.

The channel that connects these two systems and enables them both to perform their functions in safety is the central bank's discount rate. The discount rate enables the general banks to build up a cash credit with the central bank, by rediscounting with it legitimate paper, and to draw actual cash against this cash credit, if necessary. It thus renders the maintenance of a large holding of actual cash unnecessary for the banks. An increase in the discount rate enables the central bank, on the other hand, to protect itself by collecting a larger proportion of its maturing bills discounted, decreasing at the same time the amount of new purchases of paper, and incidentally attracting foreign money or warding off gold exports. While cash payments continue without hesitation, the increased rate brings about a general contraction which will result in a safe ratio between the actual cash holdings of the nation and the grand total of its cash obligations.

The less actual cash is required in the process of paying debts and settling balances, the more developed is the system. This applies not only to the transactions within each city, but much more so to the settlements and payments between cities. Whenever a central bank opens a branch in a city, it means that from that day a bank of that community can deposit with that branch a given sum of money, and request that the amount be transferred to the credit of any other bank having an account with the head office, or any other branch of the central bank. This means that a great clearing system will come into existence all over the country, and that cash remittances for account of the general banks will cease to exist between places where there are central-bank branches.

We have repeatedly dealt at length with the folly of a system which makes the commercial paper purchased by a bank immovable assets, locking up the capital of the purchaser, and which forces the banks to consider as their only quick assets

cash in their vaults which they must not use, and call loans on the stock exchange which during a panic they cannot turn into cash.

We may then stop here for a moment and establish four general principles, as I would like to term them, which follow from our discussion up to this point:

I. Cash reserves must be centralized into one strong organization where they will be available when needed, and where they will command such confidence that they will not be withdrawn except for actual circulation or gold exports.

II. In order to secure the free return of cash into the central reservoir, there must be some means of exchange between the central reservoir and the banks, so that banks may rely on their ability to build up with the central reservoir a credit balance against which they may draw cash if necessary. This medium of exchange must be commercial paper (under safeguards to be discussed later on).

III. Fluidity of credit must be our final aim. A sound financial system must mobilize its commercial paper and make it a quick asset instead of a lock-up. Mobilized commercial paper, instead of bonds and loans on stock-exchange collateral, must finally become the most important basis of our financial structure. The larger reservoir must regulate the smaller one; not *vice versa*, as with us. Discounts in the main liquidate themselves within a comparatively short period, and by the natural process of consumption. Bonds, which are investments of long maturity, are not self-liquidating, but they and stock-exchange loans, which represent undigested securities, must be finally absorbed by the process of investment of the savings of the nation. This is at best a slow process, in which only comparatively few persons participate subsequently to the initial process of general consumption by all. Therefore no nation enjoying a modern financial system bases it primarily on bonds and stock-exchange loans.

IV. Clearings must not stop within the limits of a single city. Remittances of cash at cross purposes between cities are even more wasteful than within a city, for the loss of interest is so much heavier and the danger of cash withdrawals from one

city to another is so much greater in critical times. The central reservoir must act as an inter-city clearing house, as it does in Europe.

Here we have the four main general principles, to which, a little later, we shall have to add two more, concerning note issue. These four principles are so self-evident and so absolutely essential that once we recognize them clearly the work to be done by us in reforming our monetary system ceases to be bewildering and complicated. Our compass is set and the only question that remains is whether we can avoid the cliffs that endanger our course. To effect a centralization of reserves and a safe system of inter-city clearings ought not to frighten us as a problem offering insurmountable difficulties.

To the general principles governing every financial system we now add some principles which ought to be observed with reference to our peculiar conditions. These principles I should like to term the local principles. They are as follows:

1. The central reservoir must not be operated for profit. If it takes the form of a bank, as probably it must, the stock dividends must be limited to what would correspond to a fair investment basis. This moderate return might be guaranteed by the government, which in turn would receive the surplus earnings.

2. The central reservoir would have to be restricted in its operations. It should deal only with banks, bankers, and trust companies. Its main function should be to buy foreign exchange, which it should accumulate in times of ease as a gold reserve, and it should purchase commercial paper from banks and trust companies only.

The difficulty here is that we have as yet no standard discount paper such as exists in England, France and Germany, and that therefore, in order to avoid abuse, some system must be invented which will act as an effective control and which will supply an additional and safe guarantee. How this can be accomplished I have outlined in detail in an article entitled "A United Reserve Bank of the United States," which was published by the Academy for the Merchants Association of New York some six months ago and which forms a part of the

present volume. It would lead too far to go into details concerning the suggestions made in that essay. They are subject to modifications and were published only for the purpose of showing that it is possible without doubt to devise some scheme which, while strict enough to prevent any abuse, can still be made broad enough to allow of practical and effective operation.

3. The management of the central reservoir must be absolutely free from the dangers of control by politics and by private interests, singly or combined. This can be achieved without doubt by a combination of measures like the following: the stockholders would appoint only a minority of the directors; a small number of additional directors would be furnished *ex officio* by some political officers, but the majority could be appointed by groups of banks all over the country under a system, for instance, like that proposed in the above-named plan. These directors should elect and appoint the managing governor of the central organ, who would be chosen and engaged like any other bank president, without any political consideration, but with due regard to ability and character alone.

But safety would have to lie not only in this mode of election, but also and mainly in the limitation of the profits and in the restriction of the operations of the central organ. A stock offering a maximum return of 4 % combined with the restriction that the central reservoir may not do anything else but buy certain clearly circumscribed paper under the strictest guarantees and injunctions, cannot possibly involve any danger from monopolistic or political domination.

4. The treasury should cease to deal directly with the banks. The central reservoir should be the recipient of the government's surplus funds and should attend to the government's disbursements. The influence in business of the treasury, a purely political body, must cease.

5. Cash balances with the central reservoir or its branches must be considered and counted by the banks as cash in their own vaults. The central organ must have power to request the banks to keep with it cash balances proportionate to the amount of their deposits.[1] Thus every bank will be made to contribute

[1] "Banks" always means national banks, state banks and trust companies.

to the work of the central reservoir, of maintaining a safe proportion between all cash obligations of the nation and its actual cash, a work which, with the lack of a fully developed discount system, would otherwise remain much less effective. It is fortunate that existing circumstances allow such a measure—which is more far-reaching than similar arrangements in Europe—without adding any new burden to the banks which are in the habit of keeping these large cash reserves. The immense advantage to be gained, without any sacrifice made by the banks, will be, that the vast sums of cash accumulated in the central reservoir will be freely forthcoming when needed, and will insure safety, instead of being helplessly and hopelessly stored up by the individual banks.

6. The central organ must be in a position to contract for temporary loans of gold with other governments or foreign central banks, and to receive or give collateral therefor.

This clause is self-explanatory. The power that this measure would confer would go a long way toward allaying fear, and thereby strengthen and benefit the system, even if the privilege were never made use of.

We have thus far left entirely out of consideration the question of note issue. We have done this because the problem loses so much of its complexity and presents itself so much more clearly if the question of notes, which is only a side issue, is temporarily disregarded; and secondly, it is just because we wanted to show how comparatively unimportant this question of note issue really is, that we have endeavored to present the structure in its fundamental lines complete in itself without embodying note issue from the beginning.

To try to remedy the shortcomings of our present system by reorganizing only the note issue, as many reformers have done, is to attempt to repair a broken-down carriage by hitching to it a fresh horse. Effective centralization of reserves and the creation of fluidity of credit are the main questions. Elastic note issue is a side question, though a very important one.[1]

[1] A full argument concerning this point is embodied in the author's article, "A United Reserve Bank of the United States," to which reference is made. The writer apologizes for some unavoidable restatements contained in the present essay.

V. We may now enumerate our fifth general principle, which is this: Inasmuch as note issue, partly secured by gold, is only an auxiliary activity of the central reservoir, the note-issuing power ought to be centralized as far as possible in the central reservoir. For not only does this uncovered note issue give additional safety to the central reservoir, but there is inherent in it a certain regulative power which is lost and endangered by an excessive decentralized and scattered additional note issue. The point is plain: If notes issued by other banks must be paid by them in cash, these other banks would again become accumulators of cash and thus interfere with the free return flow of cash into the central reservoir. This would be a fundamental danger. If, on the other hand, they could rely on the central reservoir to redeem their notes in cash, they could work at cross purposes with the central reservoir, antagonize its restrictive policy, weaken its position, and still throw on it the entire burden of final cash regulation.

Bank notes are deposits on demand in bearer form, passing as cash. If we desire to authorize the issue of bank notes partly secured by bills purchased and only partly secured by gold—as there cannot be any doubt we should—the duty to make sure that this proportion remain within safe limits and that the notes always be met by actual cash must be left to the same organ that guarantees the prompt transformation of every cash token into actual cash.

VI. Furthermore, the function of making money and of issuing money are at times distinctly opposed, and the performance of these functions should lie in entirely separate bodies.

In developing these principles I am not unmindful of the fact that in Europe also there are countries where note issue is not entirely centralized. Changes in a monetary system have to be perfected with extreme care and patience, and everywhere it has been necessary to live through periods of compromise before finally reaching the coveted goal. In Germany, where there were thirty-two banks of issue, there are now only five, including the Reichsbank, which now, as a matter of fact, has become the all-important regulator. The other banks have been brought into a state of coördination where they have to coöperate in following the Reichsbank's lead.

We, too, shall have to be prepared for a period of compromise concerning note issue. We have before us a complex problem, inasmuch as there are at present in circulation too many inelastic and unsecured, or poorly-secured notes, like the national-bank notes, the greenbacks, and the silver notes. To convert at once any and all of them into the notes of the central organ would be too large an undertaking at this time. However, we may safely leave in circulation about half the amount now outstanding, to serve as the pocket money of the people, and begin by substituting the new elastic notes of the central organ for the other half. For elasticity means not only expansion, but also contraction. We must instil into our present system a sufficient amount of elastic notes—elastic because, being issued against bills purchased, they are withdrawn from circulation when the money paid for this paper at maturity is not reinvested in the purchase of other bills. If the bank cannot contract its notes in time of ease, it cannot expand as far as it should in times of stress. The principle ought therefore to be established that an ample portion of our present unsecured notes ought to be withdrawn and replaced by the notes of the central organ.

This, again, is not an impossible task. We have outlined in our previous plan how it could be accomplished by withdrawing the national-bank notes and leaving the greenbacks and silver notes in circulation.

We could well imagine another plan,[1] which is advocated also by Prof. Sprague of Harvard, in connection with suggestions now made by him for a modified form of a central bank. This plan would probably be more popular, though in my opinion not quite so sound. It is a scheme which would for the time being leave the national-bank notes and silver certificates undisturbed and provide for the redemption of the greenbacks. The government would deposit with the central organ the $150,000,000 gold held against the 356 millions of greenbacks now outstanding. The central organ would assume these greenbacks and we would suggest that it receive in turn the privi-

[1] *Quarterly Journal of Economics*, Feb., Aug. and Nov., 1910.

lege of calling on the government in times of stress to pay for the remaining 200 millions, which the government would have the privilege of doing either by issuing to the central organ some short treasury bonds or by paying in cash. This would enable the bank in case of extreme demands to place the treasury bonds at home or abroad and break the pressure on its gold holdings. The surplus earnings of the central organ should be applied under this plan as a gradual redemption fund of the outstanding government bonds held by the national banks, and if, later on, it should be found necessary, the redemption of the government bonds in the hands of the banks might be accelerated by other means.

7. No matter what may happen, not one additional government bond must be issued, carrying with it the privilege of further note issue by the national banks. While the national banks, which acquired these bonds in the past, are entitled to full and fair protection as to their present holdings, this reckless inflation of our currency system, which even to-day is a severe obstacle to monetary reform, must not be allowed to increase and thereby further weaken our miserable system.

8. Automatic taxes governing scattered note issue cannot bring about a safe and practical regulation. Conditions vary; a drain from within has to be met in a different way from a drain coming from without. Demands originating in healthy periodical economic developments must be treated in a different way from demands caused by over-expansion and over-speculation. In a large country covering the most varying geographical, social, and economic conditions, one ironclad tax, applied without possible discrimination to all alike at the same time, will do harm in one corner while it does good in another.

The system must provide for the use of brains and for a wise power of discrimination, though the regulative power must be so strictly circumscribed that there can be no other motive but the general good in deciding upon the questions as they arise. The elimination of any possibility of gain, the restriction of the functions of the central organ and the composition of its board will guarantee this.

One word in closing. With a structure as defective as ours,

we cannot expect to develop at once an absolutely perfect new system. Monetary reform must try to perfect changes without violently upsetting existing conditions. The principles laid down here, and the details contained in my previous plan fully allow for this. The changes proposed leave the business of the banks and even their methods almost untouched. In order to do this, the so-called local principles must adapt themselves to conditions. However, there must not be the slightest compromise in two respects: The changes must err rather on the side of safety than on the side of immediate perfection and the fullest efficiency; and furthermore, they must contain nothing that is in contravention of those general principles which can be neglected only by endangering the whole structure.

Centralization of reserves, effective concentration of note issue, and fluidity of credit, strongly safeguarded, though thereby somewhat clumsy in the beginning, are the rules that must and can be observed. They are the only means of safely killing the germ distrust, or, to change the metaphor, of averting the ignominious struggle for life in a fire-trap. Unless we follow these lines we shall again see the sorry day when banks will trample each other to death in the mad attempt at saving themselves, till general suspension will put an end to this disgraceful scramble, marking in turn only the beginning of untold misery for the nation.

Slowly but surely it is becoming evident to the nation—and if the work of the Monetary Commission had accomplished nothing more, it would have done a great deal—that central banks are not oligarchic but democratic institutions, that central banks by creating safe conditions render the small banks independent of the dominion of the large institutions, and that in Europe the central banks are the backbone of the independent banks in their fight against the ever-growing branch-banking system.

A system of centralized reserves and decentralized banking power is clearly the one that this country requires, and it is my conviction that it will gladly accept it when once that system is clearly presented to it in definite form.

I have here avoided the name central bank, and have used

the name central reservoir, just as in my previous articles I have termed the institution a central reserve bank or a united reserve bank. This has not been done from cowardice, for the purpose of avoiding a name against which popular prejudice ran high. It has been done for the reason that, first of all, the name expresses what is to me the most important feature of the problem, namely, the centralization of reserves. The second reason is that we should not have, and what we suggest is not, a central bank. Wherever central banks exist, their powers are infinitely wider; they are real banks privileged to do almost a complete general banking business. The central organ, on the other hand, as here suggested, though securing to us the principal advantages of the central-bank system, is nothing but a central reservoir, precluded from doing a general banking business and invested only with such functions as it absolutely needs for its own protection and for the protection of the nation.

It has been a great privilege to be allowed to read this paper under the auspices of this academy and the commercial bodies uniting with it in this national conference and under the eyes of the members of the Monetary Commission. We wish the latter Godspeed. May success be with them and may they take up this momentous work without any further delay.

These years have been well employed in locating the evil and in clearly diagnosing the case. But now is the time to perform the operation, before the patient gets another relapse. Let us hope that this question, which is non-partisan—for as far as we remember we did not find that Republican faces looked any different from Democratic ones during the panic—will be solved on non-partisan lines and that new nationalism will bury the hatchet before the vastly more important question of new national-bankism.

THE TRANSITION FROM EXISTING CONDITIONS TO CENTRAL BANKING[1]

BY CHARLES A. CONANT

Author of *A History of Modern Banks of Issue*

IN organizing upon a new basis the banking system of a country as large as the United States, the problem of transition from the old system to the new is almost as important as the soundness of the new system. This problem of transition,—its dislocations, its difficulties and its costs,—is one which is too much ignored by the theoretical economist, perhaps in tariff matters as well as in those of finance. A transition, however, which may affect the activities, earning power and future calculations of a generation or even of a decade, looms larger upon the horizon of the people of that generation or that decade than the remote benefits to be attained by their successors when the transition is completed.

Upon the subject of finance, fortunately, it is possible to reason with more precision, from both theory and experience, than in some other parts of the economic field. In this field, as in the field of physical research, there has been great progress in recent years. The experience of such countries as Austria-Hungary, Russia and Japan in replacing irredeemable paper by a gold currency; the great experiment in British India in giving a fixed gold value to hundreds of millions of silver, supported by similar tests upon a smaller scale in Mexico, Peru and the Philippines; the success of Mr. Lidderdale, the governor of the Bank of England, in preventing a panic in 1890 by the simple process of coöperation to sustain confidence,—all these and other important events have taught the farsighted man of finance how far he can go in handling with courage and resolution the edged tools of gold, confidence and credit to accomplish given results.

[1] A paper presented at the meeting of the Academy of Political Science, November 12, 1910.

In dealing with the problem of banking reform in America, we have to deal with a problem of great magnitude, but one in all other respects comparatively simple. We do not have to struggle with a depreciated currency, as we did in 1875, nor do we have to face the depressing problem of locked-up and impaired assets, as did Italy and the Argentine when they undertook the reorganization of their banking systems. We have, moreover, an influence constantly working in our favor, in solving ugly problems of government paper and inflated bank-note issues, in the steady growth of our population and productive power and hence in our power of absorbing currency.

In dealing with the methods by which the power of note issue should be transferred from the existing national banks, above 7,000 in number, to a central bank with adequate branches, it is possible only to touch upon a few of the salient problems which present themselves. Thus far, less attention has been given to these problems than to that of the structure and operation of the proposed central bank itself. It cannot be expected that within the brief space of this paper an ultimate solution of those problems in all their details will be found; nor is it to be assumed that the suggestions here made are necessarily the best and final solutions. I have no doubt, however, that a method of transition from the old system to the new can be found which will permit the inauguration and operation of the central bank without jar to credit and confidence and without impairment of the interests and profits of the existing banks. That it can be found has been shown by the recent experiences of Sweden and Switzerland, both of which have transferred the power of note issue from local banks to central institutions, while leaving to the local banks their old powers as banks of discount and deposit. All that can be done in this paper is to point out the more important factors to be dealt with in solving the problem in this country and suggesting the broad outlines of a solution. Among these essential problems to be considered the following may be set forth:

1. The disposition of the two-per-cent bonds.

2. The disposition of the existing national-bank notes.

3. The relation of the existing national banks and other banks to the central bank.

4. The reorganization of the government currency.

I. The problem of the bonds is a serious one, but probably not so difficult as it appears, if it be attacked with a determined purpose to find a solution. The ultimate aim to be sought is to eliminate the bonds entirely from the banking business, except that perhaps a prescribed minimum might be left with the central bank as cover for the base line of its circulation, upon which the elastic element would be superimposed, adequately protected by gold. To retain bonds at all as a basis of bank circulation is not in accordance with scientific political economy, but dates back in practice to the organization of the Bank of England in 1694 and to its reorganization in 1844. Modern experience has shown that a certain amount of notes covered by assets not thoroughly liquid do comparatively little harm if they form only a moderate percentage of the total circulation and do not hamper the convertibility of the elastic element.

If the bonds were worth what the banks paid for them, they could be withdrawn by the banks as they surrendered their circulation and gradually distributed through the investment market. In the case of the 2 % bonds, however, which constitute cover for all but 6 % of the present bank circulation, value is derived largely from the use of bonds for this purpose. It would be necessary, therefore, in order to avoid heavy losses by the banks, to leave the bond-secured circulation untouched for a time or to provide that the bonds be taken over at par, or at some other fixed valuation, by an institution strong enough to carry them until maturity. If the latter course were decided upon, the function of carrying the bonds could probably be assumed by the central bank. It might be found advisable in any case to extend the process of substituting the notes of the central bank for those of the local banks over several years, and in the meantime outlets might be found for a part of the bonds by conversion or through other channels. If the central bank should assume liability for all the outstanding notes of national banks and should hold against them the bonds which the national banks now own, the notes would be protected by assets at least as flexible as under existing law and would have the

additional protection of the gold reserve of the bank and its great powers in the money market, derived from unity of resources and control.

A means of eliminating the bonds—or at least a large portion of them — within a comparatively short time, might be found in the postal savings system. There is little reason to doubt that this system will grow rapidly, once it has been fairly launched, and such a growth seems likely to occur several years before the central bank opens its doors for business. There may be a question whether the postal savings system in this country will so far supersede existing saving systems as to attain the rate of growth which has been reached in European countries. It is not unreasonable to believe, however, in view of the fact that savings deposits in the United States have grown during the past ten years at the rate of $130,000,000 per year, that the postal savings banks will get their share of the increment of progress and will soon be in a position to absorb annually many millions of securities. In Prussia, with a population little more than one-third of ours, and probably with a considerably lower scale of productive efficiency per capita, the five years ending with 1906 witnessed an increase in deposits in the savings banks of some 2,500,000,000 marks, or about $600,000,000. Figures like these indicate that if our postal savings system should prove at all attractive to the public, even in those parts of the country only which now lack efficient savings systems, the problem of getting rid of the bonds would be solved very soon after provision was made for their absorption by the people's savings.

In carrying out such a plan, there would be justification for a refunding operation which would correct the error of 1900 in seeking to float 2 % bonds at par, and would permit an interest rate to be paid which would give them a value near par as investments. If the secretary of the treasury were authorized to refund 2 % into 3 %, bonds only when they were presented by the postal savings bank, the teeth of criticism against an increase of the interest rate would be drawn by the fact that the toiling masses of the people were being put upon a level in the earning power of their small savings with the more fortunate investors in other securities.

II. The problem of getting rid of the existing national-bank notes is closely linked with that of eliminating the bonds from banking assets. There are several directions from which the problem of the notes might be approached. In some respects, the easiest path might be found along the precedent set by England in 1844 in careful respect for vested rights. If it were decreed that the national-bank circulation should stop where it is and that no bank in future should be permitted to take out an additional note, the field would at least be cleared for superimposing upon this dead weight the elastic element of issues by the central bank for future needs. If the principle of the English law were followed,—that whenever a bank liquidated, its power of issue should lapse,—there would be a steady downward movement of the old bond-based circulation while the upward movement of the total circulation due to expanding business was swelling the elastic element issued by the central bank.

The number of banks which have gone into voluntary liquidation since the organization of the national system has been 2,063, with gross capital of $356,542,900. The capital of banks liquidating during the past eight or ten years has shown an average of about $16,000,000 per year, which would be swelled by insolvencies to perhaps $20,000,000. The elimination of the notes of such banks for a period of ten years would have a perceptible effect in reducing circulation. If there were added to this provision the extension of the rule which is already law, that banks must retire circulation based upon bonds which have reached maturity, there would be an accelerating rate in the withdrawal of the old circulation which would soon reduce it to a negligible factor. This policy would have the merit of leaving the 2 % bonds to be provided for at the leisure of the government and the banks. They might no longer be required as a basis for the fixed circulation of the national banks, but might be surrendered *pro rata* over a series of years as an outlet was afforded for them in the postal savings system. Such a plan would probably necessitate a bank-note guaranty fund for the protection of the surviving notes of the national banks, but the creation of such a fund and its administration by the central bank would afford ample assurance against distrust of the old notes.

This plan represents the extreme of conservatism. It would probably be wiser to adopt a plan somewhat more radical for withdrawing the note-issuing power from the national banks. The desired result might be accomplished in a short term of years, at the rate of a fixed amount per quarter, as in the case of the new charter of the Bank of Switzerland. The National Swiss Bank went into operation in the summer of 1907, and it was provided that the circulation of the local banks then outstanding should be got rid of in three years by the surrender of one-twelfth of the amount quarterly. Notes not presented for retirement were covered by deposits of lawful money, as under our existing national banking law.

Such a process of reduction would not be difficult or embarrassing to the national banks if a market had been created for the bonds, either through purchase by the central bank with its own notes or by their absorption into the postal savings system, as above set forth. The central bank would undoubtedly be prepared to aid the local banks by advances and rediscounts, as was provided for in the recent reorganization in both Switzerland and Sweden. In the case of Switzerland, the National Bank made advances on bonds and other securities to facilitate the retirement of the notes of the local banks. In Sweden there were more specific provisions for aiding the local banks, to which reference will be made in discussing their relation to the central bank.

It is obvious that the existing national banks would suffer no embarrassment or loss if they received the notes of the central bank in substitution for their own, except the interest on the United States bonds which they now hold against circulation. The profit from this source is so small, and would be offset by so many advantages in the relations of the local banks with the central bank, that the loss of it would not impair the earning power of the local banks. On the contrary, the essential purpose for which circulation is desired would be served better than under the present system by the ability of the local bank to obtain currency up to any reasonable amount during the seasons when it was most required, by the simple process of rediscounting its good securities at the central bank and its branches.

Instead of being limited by a rigid rule or by the fluctuations of the bond market in its ability to obtain notes, the local bank would be in a position to meet the requirements of its constituents up to the limit of the aggregate of its first-class bankable resources. There would be no currency panics to be feared; there would be no occasion for piling up idle reserves, drawn from reserve agents in New York or Chicago under the menace of a fear that, unless currency were hoarded, it could not be had.

III. The problem of the relation of the local banks to the central bank would soon solve itself. Enough has already been said to indicate that their relations, instead of being competitive, would be mutually helpful. The central bank, dowered with a power of note issue which would be limited only by its ability to maintain adequate gold reserves through its influence over the international market, would stand ready to aid the local banks to the limit of their legitimate needs. The local banks, at least during the period of transition, might be accorded some of the special privileges which were granted to them in Sweden, where a credit was opened in their favor against approved collateral at a rate 2 % below the published discount rate, and power was granted to obtain rediscounts at a rate not exceeding two-thirds of the published rate. Reserve requirements for the local banks might be made less onerous than at present, on condition that they kept the notes of the central bank in reserve vaults.

In putting into execution a more flexible system of credit than that which the country now possesses, it would be necessary to extend the practice of acceptances, which has been so ably presented to the country and to this academy in the papers of Mr. Paul M. Warburg. The adoption of this system would come about naturally when it appeared that the central bank would grant accommodation readily upon accepted paper and preferred to take it when it had partly matured rather than immediately after its creation. The gradual extension of the system of acceptances, especially in foreign trade, would give genuine convertibility to commercial assets which now too often represent a security acceptable only at the institution where it is first discounted. Foreign bills, moreover, would become an

available part of the real reserve of the central bank, because they would meet the demands for the export of capital or for gold resources at London, Paris or Berlin in times of pressure.

IV. It remains to refer briefly to the share which the central bank would be able to take in restoring to a modern basis our clumsy system of government currency. It would be a legitimate duty of the bank to assume the current redemption of the greenbacks. If the government should turn over to the bank its reserve of $150,000,000 in gold, the bank would need no other asset against the $346,000,000 in outstanding greenbacks except the liability of the government for their ultimate redemption. If the bank notes and the greenbacks were thus disposed of, it probably would not be necessary to provide for direct redemption of silver certificates in gold. They would float of themselves as a substratum of token money, representing a constantly diminishing ratio to the whole amount of currency in the country. In the case of the gold certificates, the government would hold the gold for their redemption until their retirement, but it would undoubtedly be wise to prohibit further issues, in order that the free gold of the country might gradually sift into the metallic reserve of the central bank as a guarantee for its outstanding notes. At first, no doubt, there would be a disposition among the old banks to discriminate in favor of gold certificates for their own reserves, but as they needed them from time to time for paying customs duties and for other large payments, the tendency of the outstanding total would be downward, and several hundred millions of the $900,000,000 in gold held against them would become a part of the great mass of yellow metal which would contribute to the impregnable reserve of the central bank.

Such, in outline, appear to be the proper solutions of the leading problems of transition from our existing system of isolated banking units, fighting among themselves in times of panic, like the demoralized passengers of a sinking ship, to the system of coördination, unity of control, and mutual protection which would be involved in the operation of a central bank of issue.

LESSONS FROM THE BANK OF ENGLAND[1]

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IN discussing the Bank of England it is necessary first to state the essential facts of its history. Until 1797 it was operated very much as the Bank of France has been during the last hundred years, issuing bank notes and accepting deposits practically without regulation and restriction. But in 1797, because England was losing gold under the influence of the expenditures made by the government abroad, the bank was restricted from redeeming its notes. Then began a chaotic period in English finance, very much like that which existed in this country from 1862 to 1878, a period of irredeemable paper money, the notes of the Bank of England constituting the standard of prices throughout the United Kingdom. The situation became so serious that finally, in 1810, the celebrated Bullion Committee rendered its report, attributing the premium on gold to the excessive issue of bank notes. The bankers and business men of England at that time, as a rule, were inclined to think that the premium on gold was due, not to any depreciation of bank notes, but to the machinations of a foreign enemy, to an unnatural increase in the demand for gold.

During that period, of course, the Bank of England note became a legal tender. Specie payments were resumed in 1821. Shortly thereafter joint-stock banks were organized which began to issue notes, using the Bank of England notes as their reserve, for they were still legal tender. Then began the development in England of a credit system superimposed upon another credit system. England suffered the same industrial and financial reverses in the '30's as this country and there was the same debate that we had with regard to the necessity for

[1] A paper presented at the meeting of the Academy of Political Science, Nov. 11, 1910.

properly securing the issue of bank notes and with regard to the danger to a country arising from an over-issue of bank notes. The so-called currency party, which advocated the idea that all bank notes should be based sovereign for sovereign upon gold, triumphed, and by the bank act of 1844, the Bank of England was deprived of its power to issue notes except in exchange for gold, with the exception of £13,000,000 already outstanding, which were covered by government securities. Since then the bank has taken over the issue of certain country banks, so that now this issue of notes not covered by gold amounts to about £18,500,000. It is unable to issue further notes except in exchange for gold, and that gold is not held in the reserve of its banking department, but is set on one side in a so-called issue department, where it is held in trust for the holders of the notes. Consequently a large part of the gold held by the Bank of England does not belong in any sense to the depositors or the general creditors of the bank, any more than the gold in the United States Treasury held as security for the gold certificates can be utilized in this country for the redemption of our greenbacks.

These are the fundamental facts leading up to the act of 1844, an act which is responsible for a great loss to England's trade and industry. Most Englishmen are opportunists in finance; they do not think things out in advance as do the French or the Germans, but wait until trouble is near and then do something to escape damage. Three years after the act of 1844 was passed, the panic of 1847 occurred, and it was necessary to suspend the bank act and permit the bank to issue notes without regard to the requirement that they should be issued only in exchange for gold. In other words, the banking department was permitted to obtain notes from the issue department by the deposit of securities. The same thing happened in 1857, and again in 1866. It might have happened since then had not a strong neighbor across the Channel come to the relief of the English money market in critical periods.

Prior to 1844, when the banks had freedom of issue, the English people employed bank notes in making exchanges very much as did the French and Germans, or as the French and

Germans do to-day. So did we at that time, but it was held prior to 1844 that the bank note contained something essentially dangerous and that an over-issue of notes would cause a crisis to arise and gold to be exported. It did not seem to occur to many of the disputants of the time, that deposits, or deposit credits, might be so developed that an over-issue of such credits would with equal suddenness or certainty cause a rise of prices and an expulsion of gold. That is something which has been learned since. The note credit is *per se* no more dangerous than the deposit credit, and the deposit credit is capable of a great deal more injury than the note because it is capable of much greater expansion, for there is a limit to the amount of paper money that we will carry or use, but there is apparently no limit to the amount of bank credit that we are willing to obtain and utilize through the medium of the check book.

Englishmen therefore began at once to develop the deposit credit and the use of the check book, until at the present time, if you will take the time to read the interesting interviews published by the National Monetary Commission,[1] interviews with the leading bankers of London, or to read the valuable monographs by Mr. Withers,[2] the financial editor of the London Times, and by Mr. Palgrave, you will discover that the practical bankers of England are almost a unit in the belief that the deposit currency which has been brought into existence since the act of 1844 was passed is wellnigh perfect, and that the English banking system as it exists today is the very best in the world. In the same interviews you will find very courteous but pointed criticisms of the French and German systems.

The act of 1844 compelled English finance from that time on to travel on its front legs, and as a result the hind legs shriveled and became unimportant, but the front legs developed

[1] *Interviews on the Banking & Currency Systems of England, France, Germany, Switzerland and Italy.* Washington, 1910. National Monetary Commission. (Senate doc. 405, 61st Cong., 2d sess.)

[2] *The English Banking System.* By H. Withers, R. H. I. Palgrave and others. Washington, 1910. National Monetary Commission. (Senate doc. 492, 61st Cong., 2d sess.)

tremendous muscles, and now if you go to England, and talk about the Bank of England and the English banking system, they will show you at once those gigantic front legs. No other country in the world has anything like them. Business is done everywhere by check, and check currency has vastly greater elasticity than have bank notes. The front legs have deen developed, and they are getting along very well in a state of stable equilibrium. In the writings and interviews of the English bankers the fact that London has become the financial and commercial center of the world is attributed to the excellence of the English banking system. England's position as the world's financial center is in reality due entirely to the fact that on account of her geographical position and on account of the remarkable characteristics of her people, she was first of all the world's trade center, she became the world's workshop, the island from which goods were sent to all corners of the globe, and to which were sent payments from all quarters of the globe. That is the reason why London has become the financial center of the world.

Now, a word about the value and importance of the check credit as compared with the note credit. England has built up a gigantic structure of deposit credit or deposit currency. It is entirely without its natural protector, the bank note; for a bank deposit is simply the bank's promise to pay to the depositor, and it is utilized by the check. English banks encouraged the use of checks even to the extent of crossing them, so that no man receiving one could go to the bank and get cash, a crossed check being payable only through the clearing house, as we would say. But the deposit credit is taken care of. Naturally if the recipient of a check desires a medium of exchange which everybody will take without endorsement he finds it in the bank note. The note then naturally takes the place of the check if the bank can issue notes, as the Bank of England cannot, because its notes are practically note certificates. Hence the Bank of England and all the bankers, relying upon its stability, encourage the use of checks and discourage the use of that other instrument of exchange which people in all countries excepting England and the United States employ. If notes

cannot be issued, then the bankers will discourage the use of notes and encourage the transaction of business by check. This goes on very well until something causes a certain amount of gold to be drawn from the banks either for domestic use or on account of international indebtedness. Now, the Bank of England, being unable to use notes to protect its credit when its cash reserve is encroached upon, is obliged to raise the rate of discount. When its discount is raised, other banks in England raise their rate, and every merchant, every manufacturer, every man in England using capital, is obliged to pay a higher rate of interest than he would have been obliged to pay had not the bank been afraid that it would lose some of that precious reserve which constitutes the sole protection of the great mass of bank deposits and deposit currency in the United Kingdom. If the raising of the rate does not cause gold to flow into the bank's vaults or prevent it from being withdrawn, then the bank goes into the open market and borrows money. It borrows, not gold, but credit, in order that it may raise the market rate of interest by depleting the supply of loanable funds. By thus lowering the price of sterling bills, it induces foreigners to invest a little more heavily in such securities, in this way bringing about a flow of gold toward London. That is a remarkable thing for a bank to have to do, in the first place to raise artificially its rate of interest, at least once a year and often several times, either to keep gold from going out or to draw some more gold in from abroad, and then to go still further and bid up the rate of interest by borrowing in the open market.

I am glad to see that the Englishmen who treat of that subject, Mr. Withers and Mr. Palgrave, both deplore this necessity and both perceive clearly the fact that the necessity for such unnatural banking has been forced upon the Bank of England by the situation developed as a necessary result of the act of 1844.

Mr. Palgrave, for instance, on page 261 of his monograph entitled *The English Banking System*, published by the Monetary Commission, says, "It is true that for more than forty years the government has not had occasion to sanction any suspension of the Peel Act, but the price which has had to

be paid for this has been an extremely high one, and the adoption of the arrangements of the Act of 1844 cannot be recommended to any other country." It is evident to any business man or banker that if a bank is artificially holding the rate of interest higher than would be the normal rate on capital, or in other words is raising the rate merely to draw gold into its reserve or to prevent gold from being drawn out of its reserve, the borrowers of the country are subject to harmful fluctuations in their costs, to uncertainties which tend to discourage the development of trade and industry. According to the statistics published by the Monetary Commission in regard to the banking and industrial affairs of Great Britain, France and Germany, during the last ten years the Bank of England has changed its rate 107 times, and the rate has varied from 2 to 7 %. During the same time the Bank of France, operated in the same way as the Bank of England before the act of 1844, has changed its rate only thirteen times, and the rate has fluctuated between 2 and 4½ % instead of between 2 and 7 %. The Bank of Germany, which has a restriction upon note issues changed its rate 73 times during the same period, the rate varying from 3 to 7½ %. Sometimes the condition was good, and sometimes it was bad. But the Bank of France, from my point of view, appears to have given the industries of France a rate of interest corresponding very nearly to what the economists call the rate of interest on capital, not a rate of discount fluctuating on account of temporary apprehensions with regard to a banking reserve.

The Bank of England has made little growth in the last twenty years. Its deposits were no larger in 1909 than they were fourteen or fifteen years ago, though the average of recent years is a little higher. The growth of the bank is shown by these figures: Deposits in 1880, £33,000,000; in 1909, £54,000,000. Notes outstanding in 1880, £26,000,000; in 1909, £29,000,000. Total liabilities in 1880, £60,000,000; in 1909, £83,000,000. Its resources have increased but 39 % in thirty years. On account of losing its relative importance in the money market, the bank has had to borrow money frequently in order to make its rate effective, thus working injury

to English trade in order to protect its own reserve. It is obliged to do it by the law of 1844 and by the system which has grown up under that law. I assume that these changes in the Bank of England rate, these artificial interferences with the money market of London, affect the prices of all loans and discounts in the United Kingdom. The resulting loss I figure at not less than ½ of 1 % on their deposit currency, which would amount to at least $35,000,000 per annum. I am inclined to think these figures too small. To say that England, for the maintenance of her present banking system, is unconsciously paying an annual tax of $35,000,000, I certainly think is putting the estimate too low.

But the English system has also some good features from which we may learn a lesson. First of all is the fact that England has a centralized reserve. All of England's banking reserve lies in the vault of one institution. That institution is not permitted by law to make a business use of it, and hence has not been able to grow. There has been no increase in the number of the bank's branches, and practically none in the amount of its business in spite of the great development of banking and of business in England and in spite of the rise in prices which naturally would have increased the numerical size of the items. England's financial system has weathered the storms in the past because the reserve has been under the control of practical, intelligent men, and they have jealously guarded it. Without dreaming that they were doing it, however, they have been obliged to impose a heavy tax upon English industry and trade in order to preserve the stability of the system. They have been able to maintain that stability because the reserve of only $150,000,000 was centralized and wisely managed. Even of this small reserve only a part was available for the protection of deposits, the rest being set aside and trusteed for the note holders. Despite these facts the centralization of the reserve and the resulting confidence in the institution, hampered as it is, have made it possible for England to finance her great enterprises without serious disaster.

Another good feature of the English banking system is the fact that the law, excepting the bank act of 1844, does not

seriously hamper any of the banking institutions. The Bank of England increases its deposits, its capital and its surplus at will. The law is silent with regard to the reserve that it must carry as a protection for its depositors, and with regard to the amount o its surplus and that of other banks.

On the other hand there are a number of bad features of the system from which we may take lessons. The law fails to provide a proper degree of publicity, a thing which instead of hampering the banks would undoubtedly increase their strength. Though they know that very well themselves, the bankers are not eager for a change in the law. The statements of English banks are exceedingly unsatisfactory, when one wants to know exactly what the condition of the bank is. For instance, they have in England deposit accounts and current accounts, and there is no way of finding out what are deposits and what are current accounts. The banks lend money on collateral and also on discount bills, thus disposing of their customers' money in two entirely different ways. When a bank is lending money on collateral, as the Bank of England and all the joint-stock banks in London do, then that bank is doing something tantamount to the advancing of funds for permanent investment. It is assisting in the construction of a railroad or in the building of factories, and that, of course, is a disposition of bank funds which cannot be approved. Even bankers themselves do not generally understand that there is always danger when they lend money on collateral, that the money is going, not into trade and industry, but into a permanent fixed form from which its rescue may be difficult. There is no way of telling how much money is advanced by the English banks on collateral and how much on discounts.

There is still a third point. The Bank of England's gold reserve, as previously stated, is exceedingly small, only about $150,000,000. If that reserve were $300,000,000, the bank would not be so nervous as at present with regard to a slight exportation of gold. Granting that the bank act of 1844 is to continue in force—and I imagine that it will continue in force for an indefinite period—the English people, or perhaps their government, must take some steps to accumulate in London a larger

stock of gold. The Bank of England might do so without cost to itself if the law permitted it to issue one-pound notes. Now the lowest note is five pounds. If the bank could issue one and two-pound notes and simply hold the gold, gradually the English people would become accustomed to these one and two-pound notes, and the gold now in circulation would flow into the bank. There is no reason why it should be exported to France or to the United States. The Bank of England under the law would be expected to hold that gold, and so it would get into circulation a large quantity of paper which would never come back for redemption. Thus it might increase its reserve by possibly fifty or seventy-five million dollars in the course of the next few years, although this amount is a mere guess.

My final criticism is this, that the Bank of England has been able to withstand the period of critical years since 1866 only because the Bank of France and other European friends with their larger hoards have usually been able and willing to help. If anything happens—and we all hope it never will happen—that Great Britain should get into war with another great nation, and if the English people should begin to get alarmed about an invasion, I think that a great many people who hold English sterling bills or who have bank accounts in London would be considerably worried until they had realized on their bills, and drawn as much gold as possible out of London. If that situation should arise, with the English finances in their present very delicate and unstable condition, the result might be disastrous.

LESSONS SUGGESTED BY THE EXPERIENCE OF THE FRENCH PEOPLE AND OF THE BANK OF FRANCE

J. PEASE NORTON

WHEN I wrote in the *Yale Review* and *Moody's Magazine* in 1906 and 1907 concerning the need of a monetary commission I suggested that the important work of such a commission should embrace the following lines of research:

1. The collection of reliable information bearing upon these questions.

2. The recommendation of remedial legislation for the present extraordinary condition of affairs.

3. Coöperation with commissions of other countries; for the problems require international action for their solution.

4. Recommendations for a comprehensive reform of our entire monetary and currency systems.

5. Recommendations for a systemization of our credit system, and a national organization of the clearing houses of the country.[1]

I little dreamed that within three years all that I wished to know regarding the current systems of exchange as practised by the great nations, written by their own experts, would be available in the shape of the magnificent reports of the Monetary Commission.

In the history of money and banking, the work of Senator Aldrich will stand forever as an example of the way a congressional commission may work to present the evidence to the end that all experience may be gathered together for the present benefit of mankind. As I have glanced over each report of this series of monographs, replete with original data, statistics and careful generalizations, I have realized anew the possibilities

[1] See *Moody's Magazine*, "Necessity of a Gold Commission," Sept., 1907; and *Yale Review*, "Gold Depreciation," October, 1906.

of national progress through the use of commissions and experts. In the investigations of the Monetary Commission, Senator Aldrich has eclipsed his earlier brilliant researches contained in the Senate *Report on the Course of Wholesale Prices and Wages*, published nearly two decades ago.

Before students of the theory of money and banking as well as before all students of social progress, two ideals are clearly presented: social progress by reduction of waste in existing institutions; social progress by substitution of more efficient institutions for existing institutions, thereby reducing the total social waste.

The creation of the Bank of France was, as André Liesse shows in his monograph on the *Evolution of Credit and Banks in France*,[1] a result of the strong will of the great Napoleon. Napoleon said: "I have created the Bank in order to allow discount at 4 %." Seldom, indeed, in the course of more than a century has the Bank of France charged more than 4 % for discount. The Bank of France is an excellent illustration of social progress by substitution of a new method. Let us look clearly at the problem solved by Napoleon and the Bank of France,—problems which confront all peoples.

One notable line of social progress lies along the path of exchanging commodities with greater and greater economy. Economists have divided the inventions of social exchange into groups, such as money as a standard of value for expressing the prices of the commodities of commerce, money as means of exchange, credit and institutions of credit. Governments have generally acted to define the standards of value, to create media of exchange and to license or regulate institutions of credit.

Napoleon asked Mollieu, the expert banker who composed the famous Havre Note, to write clearly in his report: "Who issues the bank notes? Who receives the profits? Who furnishes the funds?" So today we may inquire of our experts, "Can our standard of value be improved? Can our media of exchange be bettered? Can the distribution of credit in our country become more general?" Some of these ques-

[1] Published by the National Monetary Commission.

tions are abundantly answered by the experience of the French people and of the Bank of France.

The lessons to be drawn from the experience of the Bank of France and of the French credit institutions are to be found preëminently along lines of a more perfect mechanism for credit operations. How the French system gathers together the idle savings of all of the people and renders it possible to lend out these funds at low interest in a productive manner is demonstrated by Patron,[1] Liesse[2] and Neymarck,[3] in their respective monographs. These experts have shown the wonderful possibilities of a bankers' bank with branches everywhere, existing for the purpose of rediscounting short-term commercial paper. They have conclusively shown how low and how stable is the discount rate under such a system. They have proved that France has weathered with serenity the gravest crises,—whether produced by war or by over-speculation in other countries,—by reason of her splendid banking system.

But, inasmuch as excellent institutions when transplanted must be readjusted to different conditions, how, it may be asked, shall we utilize this French experience? What are the objects which we should strive to obtain? In seeking better monetary and credit systems, the following objects are paramount:

1. Safety so that crises shall be prevented.

2. Low uniform discount rates on commercial paper so that commerce and industry may thrive.

3. General distribution of credit so that small concerns as well as large corporations may have opportunity to borrow at reasonable rates.

4. Opportunity for all the people to secure interest upon their savings, however small, with absolute safety of principal, so that an enor-

[1] *The Bank of France in its Relation to National and International Credit.* By Maurice Patron. Washington, 1910. National Monetary Commission. (Senate doc. 494, 61st cong., 2d sess.)

[2] *Evolution of Credit and Banks in France.* By André Liesse. Washington, 1910. National Monetary Commission. (Senate doc. 522, 61st cong., 2d sess.)

[3] *French Savings and their Influence upon the Bank of France and upon French Banks.* By Alfred Neymarck. Washington, 1910. National Monetary Commission. (Senate doc. 494, 61st cong., 2d sess.)

mous concealed wealth may become available for the development of the prosperity of all.

5. Better facilities for obtaining loans upon commodities, when produced, by a system of licensed warehouses, under federal inspection.

6. Complete development of our clearing-house system so that what the local clearing house is to the banks of a city, a national clearing house shall be to the clearing houses of the country, when operated in coöperation with a central bank.

7. Adequate organization of the foreign exchange market so that our foreign commerce may be assisted.

8. Measures calculated to make more uniform the standard of value so that the bitter class contests, attended by strike, lockout and great popular discontent, shall be lessened. All of these are produced largely by sudden changes in price levels, increasing or decreasing suddenly the cost of living for the millions of our working people.

Let us consider briefly, in the light of the French experience, how we may frame legislation to secure the objects desired.

I. Crises are notoriously produced by a chain of events which may be summed up by the phrase "miscalculation of probable profits, which turns out really to have been over-speculation." For commerce, the "calm health of nations," becomes "feverish over-speculation" only when merchants miscalculate their probable profits.

Inasmuch as calculations of probable profits depend largely upon what merchants expect to get for their goods and to pay for their credits, it follows as the pattern follows the blow of the drop-hammer that sudden and violent changes in commodity prices or in discount rates turn probable profits into losses, producing failures and crises.

How may a law be framed to prevent forever the recurrence of crises,—and the suspension of specie payments by the banks, so long as the country remains upon the gold standard of value? To secure stability of banking institutions, the common practise has been to limit by law or by direction of the governors of the bank the ratio of cash reserves to immediate liabilities such as deposits. Naturally this ratio as a limit between the danger and safety zones in banking, was early thought of, inasmuch as 100 % of cash to deposits means absolute safety. On the

other hand, the profits of a bank increase as this ratio is reduced. In the United States, the statute requires 25% cash reserves to deposits for the central-reserve cities, 12½% for the reserve cities and 6% for the country banks. A disproportionately larger growth of institutions outside the national reserve requirements, such as of trust companies, state and private banks, must reduce for our whole banking system the safe average of cash to deposits. This was a potent condition underlying the suspension of specie payments in 1907.

Inasmuch as the points of weakness even in severe crises are comparatively few in number, the failure of a few banks on account of isolated reserves produces grave consequences. The need is for a united reserve, which is the advantage afforded by a central bank.

II. The United States needs, beyond any other financial reform, the establishment of a central bank.[1] A central bank is the economic mechanism which makes interest more uniform over a wide area. The central bank is an institution which lends to banks in every locality, receiving in exchange for the cash advanced the local bank's most liquid assets, which are commercial loans coming due within four to thirty days.

The merchants of New Orleans may require funds in large quantity during a given fortnight. If business is active, the banks may be loaned up to the limit of the reserve requirements. Nothing remains for the bank to do but to raise the discount rate on new loans as the old loans mature, which is really selling the available credit to the highest bidder. Could the banks at New Orleans rediscount with the central bank the notes which would be coming due within a week or ten days, so much additional credit is instantly available for the use of the merchants of New Orleans. Could the banks of the north re-purchase these notes from the central bank, when properly guaranteed, or could new notes of the central bank be issued against such liquid assets, the earning power of the northern banks would be increased, as in this way employment might be found for idle funds.

[1] See my article, "Central Bank as a Federal Clearing House," *Moody's Magazine*, Sept., 1910.

A central bank would charge enough for its services to continue upon a self-supporting basis. Abundant experience is available with reference to such points. The hope of profit cannot be overpowering in the minds of the governors when all earnings above 4 % go to the treasury of the United States, which is the suggestion of Mr. Paul Warburg, expert for the Monetary Commission.

A central bank should exist to serve the nation as a whole. The dividends to the stockholders may be small, but the services to the merchants of the country would be great indeed. The real gains are lower interest rates to merchants, and above all, much less risk of sudden crisis, which is so demoralizing to business success.

The chance of a crisis is reduced, because a great central institution is in a position to command sobriety, to meet financial storm with equanimity and to make available for the development of our local industries the vast surplus wealth of Europe.

Eighteen thousand banks at present, each with a separate reserve and independent of each other, are eighteen thousand sailboats on the water. In fair weather, everything is serene and every sail is set. In a sudden storm like that of 1907, nearly all suddenly take in sail and a large number disastrously capsize. A central bank, on the other hand, is a mammoth ocean liner, built to withstand the tempests.

Besides acting as a federal clearing house, as illustrated above, for the general distribution of credit among all the eighteen thousand banks of the country, a central bank would buy and sell government bonds, deal in foreign exchange and maintain branch offices at important centers throughout the United States.

If the capital stock of the central bank, whether one or two hundred millions of dollars is not essential, were distributed in ownership among the eighteen thousand banks, the merchants of the country and the public at large, with the provisions that each stockholder should have only a single vote, and further that all earnings above 4 % should go to the government, all possibilities of one-man control or of excessive profits would be made impossible at the start.

III. Much may be accomplished in the direction of more general distribution of credit by the combination of the central bank, the postal-savings-bank system and a system of licensed warehouses under federal inspection, when established. The desideratum is to render it easy for all who desire credit to obtain it on the security of commercial stocks, whether merchants' goods in stores and warehouses or farmers' commodities produced and awaiting marketing. The French law "constitutes the landowner, so to speak, a public warehouse. It is he who, without any other controlling appraisement, makes declaration as to quantity and commercial value to the clerk of the justice of the peace. In short, the agriculturist enjoys a confidence which so far has been denied to industry and commerce."[1]

IV. That the system of postal savings banks already provided by law will collect a vast amount of capital which is now hoarded is extremely probable. This additional capital, in whatever way invested, will afford additional funds as a basis for credit to the advantage of all. At the same time, it is to be hoped that the administration will work out the operation so successfully that at an early date a safe place to deposit money in small amounts will be provided generally throughout the United States.

V. Goods stored in warehouses are a desirable basis for the extension of credit. Cheap storage with large reserves of commodities is an excellent thing for the nation as a preparation for war. Some system of licensing warehouses and maintaining proper statistics describing goods stored as a basis of credit is desirable. Why should not such credit be extended to tenants by the warehouses complying with government requirements as to inspection, by arrangement directly with the central bank? The central bank would become an even greater aid to the development of our commerce and industries.

VI. America is noted for the development of the clearing-house system. On account of an inelastic system of credit, a strong motive has been present to economize the use of coin. In France, the central bank has performed this function to a large

[1] Patron, p. 162.

extent in other ways. It is desirable that a system of clearing between clearing houses should be organized, which may be easily accomplished in coöperation with a central bank.

VII. Just as the clearing-house system should be extended in coöperation with the central bank, every effort should be made to extend the system of clearing international indebtedness in the most efficient manner. In order that our merchants may compete in shipments to foreign countries, foreign exchange rates must become more favorable to our country. Such an organization tending to make more favorable foreign exchange conditions may be furnished by the branches of a great central bank. Much progress is possible in this field. Every effort should be made to extend our commerce with foreign countries; whether by reciprocity or free trade is not essential.

VIII. Says Patron, in his brilliant monograph;

> "the interesting evolution of means of exchange which we are witnessing and which is familiar to everybody seems to be leading us, after the well-defined periods of barter and money, to a system of mere clearings of balances. All exchange operations would then be settled by simple book transfers. Coin, thus reduced to the condition of money of account, would cease to play any real part. Economists are even thinking of a return to barter, which would complete the cycle, bringing us back to the original state after thousands of years and combinations of all kinds. Such would be the course of this evolution."

That this evolution will be hastened by the lack of stability of the gold standard seems probable. How violently price levels have fluctuated with the vast increase in the production of gold [1] may be indicated by any one of the important series of index numbers.

If we express the value of gold in the multiple standard as computed by the Dun index numbers, and their continuation, the so-called Gibson Index numbers,[2] using the average prices of 1890-99 as our base 100, we are able to frame a table show-

[1] See my article on the "Gold Flood," *Cosmopolitan Magazine*, June, 1910.

[2] See my article, "A Revised Index Number for Measuring the Rise in Prices," in *Quarterly Journal of Economics*, Aug., 1910.

ing the premium or discount on gold each year in the multiple standard.

Table Showing the Premium or Discount on Gold Expressed in the Multiple Standard, Base = 100, Average 1890–99 Prices.

	Price of Gold.	Depreciation Compared with the Average 1890–9.
1900	91	9 %
1901	91	9 %
1902	83	17 %
1903	85	15 %
1904	88	12 %
1905	86	14 %
1906	80	20 %
1907	77	23 %
1908	80	20 %
1909	75	25 %
1910 1st 9 mos.	72	28 %

It is plain that gold has depreciated to an alarming extent. This heavy depreciation in the gold standard measured in the multiple standard shows how grievous has been the burden on the working classes. Had wages been paid in the multiple standard rather than in gold, the cost of living would have remained relatively constant for our working classes.

In this connection, the Massachusetts Commission on the Cost of Living suggests the legalization of a multiple standard, concluding:

> It is hard to see how any harm could come from giving official aid to the maintenance of such a standard for the use of any borrowers and lenders who chose to adopt it. In the event of long continuance of the upward movement of prices, its use might prevent serious injustice and great hardship. We recommend that our senators and representatives consider the expediency of advocating its establishment.

The advantages of such an optional standard for wage contracts would be very great. On the one hand, during periods of rising prices in gold, the cost of living would be met automatically by increasing real wages, and on the other hand in periods of declining gold prices, wages would decrease in proportion with the cost of living, preventing temporary social

extravagance at such times among our laboring classes and resulting crises in our industries after a little time. How such a readjustment can be early made, I have discussed in an article on "The Remedy for High Prices."[1]

To prevent another crisis with all the disastrous consequences, we need quick action by Congress. It is to be hoped that such legislation will be produced at the coming session. These monetary problems are non-partisan. Great credit is due the Monetary Commission for their work. The legislation for postal savings banks is already a reality. In brief summary, let us adopt those measures which experience shows to be both wise and necessary.

Let us have a central bank somewhat similar to the Bank of France, a banker's bank with branches at convenient points, at which all banks of every character may rediscount commercial paper. Such an institution will mean much in the stable development of business. For a reasonably uniform low rate of discount guarantees for a new country great prosperity.

Let us have a successful administration of the postal savings banks so that our people may find a safe depository for their funds at every post office in the land.

Let us encourage all our people to own the bonds of the United States government, since thereby social solidarity is increased. To this end we should place the bonds upon an investment basis, raising the interest rate, and so arranging that United States bonds in small denominations may be purchased at every postoffice.

Let us, either through the central bank or by an independent institution, provide a national clearing house which shall supplement the work of all local clearing houses of the United States.

Let us provide an optional multiple standard in which wages may be paid when so agreed upon in advance. Should the government daily publish the value of gold in the multiple standard based on fifty to one hundred leading commodities, the rate of wages so expressed would vary with the cost of living so that in times of rising prices higher wages would accom-

[1] *Independent*, Feb. 10, 1910.

pany increasing cost of living. With the present violent fluctuations in prices under the gold standard, strikes, lockouts and great popular discontent are caused by rapidly rising prices, and widespread social extravagance by prices falling suddenly and more rapidly than wages.

Let us have licensed storehouses in which commodities stored away become more readily the basis of credit, to the great benefit of our agricultural and merchant classes.

Let us in short have a money and a credit code of law so perfect that it shall become a model for all the nations of the world.

THE BANKING SYSTEM OF MEXICO[1]

R. M. BRECKENRIDGE

THE functions of discount, deposit and issue are exercised in the Republic of Mexico by twenty-four banks, all governed by a uniform law, first passed in 1897, but later amended, as need arose, especially in 1908. Nine of these banks had been established prior to 1897, and two of them in particular had at that time such special privileges for settled terms, that they were given an exceptional position under the new law.

The older of these was the Bank of London and Mexico, established at the City of Mexico in 1864, and at first without special charter. Nothwithstanding the opposition of the commercial houses, who had theretofore carried on a variety of banking and credit activities as incidents of their business, especially of the import and export trades, this bank had grown pretty steadily in strength and had gained good credit, not only for its obligations generally, but also for its issues of notes.

In 1875, two or three small banks, also banks of issue, were founded under state authority in Chihuahua, and in 1879 the century-old *mont de piété* or loan office got the right to do a banking business and issue certificates of deposit payable on demand. These, however, were issued for odd rather than for even sums and were not suited to serve exactly like bank notes for a circulating medium.

Congress in 1881 gave the company afterwards known as the International Bank of Paris a charter for a bank of issue with a capital stock of $8,000,000 (eight million pesos). This bank entered the field under the style of the National Bank of Mexico; to it were given the functions and opportunities of cashier of the national treasury. It was required to keep its circulation

[1] Abridged from *The Banking System of Mexico*, by Charles A. Conant, Washington, 1910. National Monetary Commission. (Senate doc. 493, 61st Cong., 2d sess.)

covered by readily negotiable securities and to keep a cash reserve equal to one-third of its outstanding notes. The Mexican Mercantile Bank, shortly afterwards started without charter, was absorbed by the National in 1884.

The same year (1884), general rules for the incorporation of banks were laid down in the code of commerce. In recognizing existing charters Congress reserved to the federal government as against the governments of the several states the exclusive right to grant new charters. Issue without government concession was forbidden, the limit of circulation was fixed at thrice the metallic reserve, permission was given to secure one-third the circulation by a deposit of money or government securities, and the circulation was taxed at 5 % on the amount outstanding. The quality of a bank's assets—or the character—was not prescribed. Under this law, several new banks were founded, but the measure lost its importance in consequence of the new charter given shortly afterward to the National Bank of Mexico. In this instrument, the monopoly of banking in the Federal District (surrounding the City of Mexico) seems to have been confirmed to the National Bank and the Bank of London and Mexico. To the National Bank, more particularly, were given certain guarantees against the creation by the government of any further banks. The National Bank was allowed a commission of 2 % for the collection and disbursement of government funds, and 2 % for the service of the national debt, while on its side, the bank undertook to grant the government a standing credit of $2,000,000 free of interest.

By the year 1896 the treasury had succeeded in adjusting the financial difficulties that the country had suffered as one domestic phase of the world-wide disturbances of 1892–1894. Balance had been restored to the budget; the public debt had been put in order; freedom of internal commerce had been achieved through the abolition of tolls upon interstate traffic. Meanwhile, either through concessions from the federal government itself (there being two views as to the scope of the pledges given the National Bank) or under charters from one or another of the states, the number of banks had been increased. But of the nine then in existence, the two domiciled

at the capital had capital stocks of $30,000,000 out of a total for all banks of $35,550,000, and note issues of $33,366,145 out of a total of $38,497,467. There was much diversity in powers and duties of these banks. Furthermore, the general rules touching banks in the code of commerce of 1884 had been omitted in the revision of 1889. Properly to help any possible commercial, agricultural and industrial expansion by a well-ordered development of credit institutions it seemed needful now to adopt well-considered and uniform banking laws.

Toward this end, the minister of finance, Señor Jose Y Limantour, prepared in 1896 for a general law upon the incorporation, establishment and operation of banks of issue, mortgage banks and banks of other kinds, and modified the concession to existing banks to make them conform so far as might be to the general law. The "General Law on Institutions of Credit," the preparation of which was intrusted to a commission of bankers (the heads of the three largest banks) and lawyers expert in economics and finance, went into force March 19, 1897. In its final form, this law dealt only with banks of issue, mortgage banks and credit banks (or banks of promotion). The proposals relating to loan pledge banks, savings banks and storage and warehouse institutions which had been advanced by the commission were reserved for later consideration.

In deciding upon what principles the new law should be based, the commission and the minister cast aside at the outset the notion that the right of issue should be confined to a single bank. The constitution of the republic was against it, even though a qualified monopoly had been given the National Bank by charter; public opinion opposed the policy; vested interests arising from later grants would be injured; and political considerations forbade. Close connection between the grantor and beneficiary of a monopoly seemed inevitable. Disaster might come too easily from such a relation between a bank and a government necessarily exposed to chance and change. From the practical view, further, it was argued that successful monopolies of issue were mostly to be found in small countries of dense and homogeneous population, without great variety of climate or resources, or in absolute monarchies. To such as

these, the republic of Mexico, in point of varied products, sparse population, imperfect means of communication and vast expanse of territory, presented the sharpest contrast possible. Local needs, it was believed, were best served by local banks with knowledge of such needs gained on the ground, the initiative and authority of branch banks being less than those of local concerns and their policy being less flexible by reasons of administrative necessity. Finally, to encourage a number of banks to enter business was likely to pave the way for a specialization, in the course of which the great banks of the Federal District would become banks of rediscount and the local banks the original source of local loans, the two classes thus serving as complementary members of a well-balanced system.

Perfect freedom of banking, on the other hand, was reckoned no less unsuitable and undesirable than perfect monopoly. Even the plan to permit anyone who met stipulated conditions to begin banking without a special concession, something after the fashion of national banks in the United States, was rejected. As the minister pointed out in a special report of 1897, the familiarity of the citizens of the two countries with the practise of individual liberty, the culture of the masses and their experience in business matters were by no means identical. Banks had been established but lately in Mexico, the country's practise in the use of credit was but scant, and outside the greater centers the distrust of credit instruments was great, while a certain spirit of imitation was likely, if freedom of banking were conceded, to lead to an undue multiplication of banks. Once a failure occurred, even a small one, a violent reaction against bank-note issues might follow. The government decided accordingly not to go as far as they could, believing it better to be able later on to widen the scope of the legislation than to be forced to narrow it.

With this in mind, a species of banking oligarchy was created. Under the policy adopted, authorization to establish institutions of credit was to be granted only upon special application. And after the first bank had been founded in each of the states, either through one of the banks already in existence accepting

the terms of the new law, or through a new establishment obtaining a charter, subsequent foundations were to be permitted only on terms so onerous as to be practically prohibitive.

While the new law was preparing, negotiations with the banks already chartered proceeded. The National Bank of Mexico waived any rights its charter might have given it in relation to the authorization of other banks, and agreed to raise the non-interest-bearing credit of the Treasury from $2,000,000 to $4,000,000, to reduce its commission on the collection and disbursement of government funds from 2 to 1¾ %, while accepting the risks of this work, and to reduce its commission on the service of the consolidated debt from 2 to 1 %. Further, it agreed to open for the *mont de piété* a standing credit of $500,000 at 3 %. On the other side, the National Bank had fifteen years added to the term of its charter and obtained a stipulation that for ten years the National Loan Office should not exercise its dormant authority to issue certificates of deposit or notes payable at sight to bearer. The Bank of London and Mexico, the only other bank which shared with the National Bank the right to keep offices and to issue notes in the Federal District as well as other parts of the country, obtained, on its undertaking to submit to the general law, that extension of its charter which was essential to attract subscription to a considerable increase of its stock.

The mortgage banks permitted by the law of 1897 were of the sort well known in Europe, which issue bonds for long terms and even sums against the general security of realty pledged to them by their borrowers. In no case, under the Mexican law, were such banks permitted to lend except on first lien or to more than half the value of the property pledged, as determined by expert appraisal. Neither might the banks lend on mines, forests, fixtures, churches or buildings for federal, state or municipal purposes. The total of bonds outstanding, the issue of one bank, was limited to twenty times the capital of that bank, as well as to the amount of loans on mortgage, made by it, and each bank was required to maintain a special cash guarantee fund in amount larger than a half-yearly service of interest on the bonds outstanding. Holders of the bonds

enjoyed a prior lien against the mortgages, fund and capital paid up or uncalled.

The banks of promotion—credit banks or finance banks—were intended for the provision of credit to agricultural, mining and industrial ventures for longer terms and on different security than it seemed proper for commercial banks of issue to accept. These also were authorized to issue a sort of bond, but the term of such bonds was limited at first to two and later (in 1908) to three years. Proceeds of these bonds might be lent on mortgage, but not up to more than fifteen per cent of the value of the property benefited. Lending to mining ventures was conditioned on the report of experts that the proceeds would suffice for repayment, and the banks were given the right not only closely to supervise the management but also to have the proceeds remitted to them as they were realized. Banks of promotion might also guarantee notes running not more than six months, or lend upon the collateral security of stocks and bonds. Forty per cent of their deposits on demand or on three days' notice they were required to hold in cash—the remainder in paper discounted for not more than six months.

Like the mortgage banks and banks of promotion, the banks of issue authorized by the new law were to be limited-liability joint-stock concerns, the liability of the shareholders being limited to the amount of stock for which they had subscribed. No bank of issue could be started without special concession of the Executive of the Republic, and no concession was to be granted unless government bonds nominally worth twenty per cent of the minimal required capital had been deposited in the national treasury or the National Bank of Mexico. Directly the bank started, this deposit was to be returned. The companies to which operation of banks of issue was confined were to consist of at least seven members; their capital stock was to be not less than $500,000 (raised in 1908 to $1,000,000) of fully-subscribed capital of which not less than half was to be paid up, and it was required that until that fund was equal to a third of the capital, ten per cent of the profits should be set aside each year to the reserve fund. Charters were limited to thirty years from the date of the law for banks of issue. For-

eign banks were forbidden to open agencies in the republic for the issue or redemption of notes.

In respect more particularly of issue, the monopoly for that field of the two banks domiciled in the Federal District was continued. Elsewhere banks could be established, but solely according to the terms of the law of 1897. The total amount of notes of any bank outstanding was limited to thrice the paid-up capital; the sum of notes outstanding and deposits payable on demand or at not more than three days' notice to twice the bank's holdings of cash and gold and silver bullion. The apparent severity of this latter restriction was tempered by the exclusion from the category of demand deposits of deposits on "account current" (in reality the proceeds of loans, and in practise the item in which is reported a great part of the Mexican banks' lending business) and accounts at reciprocal or differential interest, even though these were subject to check. The bank whose circulation ran in excess of either of the limits fixed was required so to report to the minister of finance and to abstain from making new loans. Fifteen days later if the circulation were still in excess, the finance department might give the bank not more than a month in which to adjust its circulation on pain of liquidation and charter forfeiture.

Bank notes could be issued only in denominations of $5, $10, $20, $50, $100, $500 and $1000 as non-interest-bearing, non-legal-tender promises to pay to bearer on demand dated at the place of issue and signed by officers of the bank and government inspectors. They gave the holders a lien on the bank's assets prior to all other creditors of the issuer save owners of property pledged to the bank, mortgage creditors when the mortgage involved had been registered previous to the transaction whereby the bank acquired the mortgaged property, and the federal, state and municipal governments. The notes were valid obligations against the promisor during the whole term of its existence. Even as against a failed or liquidated bank they were to lapse only five years after the failure or liquidation. Head offices, apparently, were required to redeem on presentation both their own notes and those of the branches; branches, only such notes as they had put into circulation. Under the

amendment of 1908, banks of issue were required periodically to exchange the notes of other banks in their possession and in the absence of express agreement to the contrary, to settle balances in cash. Further, to guard against overissue, it was forbidden to put notes into circulation unless the proper stamp had been engraved upon them by the government stamp-printing department. To this the finance department could give permission only when satisfied that the limit of issue would not be exceeded.

According to article 29 of the amended law, it is prohibited to banks of issue:

1. To make loans or discount notes or other paper running for more than six months.

2. To discount notes or other commercial paper without at least two signatures of well-known solvency, unless collateral is given.

3. To make loans secured by mortgage except in the cases set forth in the following article.

4. To make loans without sufficient collateral to persons or associations not domiciled or having business of importance in the states or territories wherein the home office, branches, or agencies expressly authorized by the treasury department may be located. From this provision are excepted operations between banks.

5. To mortgage their real property or borrow on their credits.

6. To pledge or pawn their bank notes or to contract obligations respecting them.

7. To accept uncovered bills of exchange or drafts, or to open credits not revocable at discretion by the bank.

8. To hold corporation stocks or bonds exceeding 10 % of the amount of paid-up capital and reserve at the time. Securities representing the federal debt and others where the capital or revenues are guaranteed by the government are not included in this limitation.

9. To operate on their own account mines, metallurgical offices, mercantile establishments, industrial or agricultural enterprises, or to take part, either by general or silent partnership, in associations [except under certain specified circumstances].

10. To engage in insurance operations.

11. To accept responsibilities, whether direct, indirect, or associate, from any single person or association, which in the aggregate exceed 10 % of the paid-up capital of the establishment. Rediscounts between banks are excepted.

There remain now to be noted, among the clauses of the law applicable to all banks, a number of restrictions likely to make for the sound conduct of banks of issue. Banks of all sorts were forbidden, for one thing, to acquire real estate except what might be needed for office purposes or what they might take over in settlement of claims. Property of the latter sort banks of issue were enjoined to sell within two years, otherwise the department of finance was in duty bound to sell it for them. Banks were forbidden to buy their own shares or to do business on the security of such shares. Neither might they consolidate with other banks without the permission of the department of finance. Sanction for the more important inhibitions of the law was provided in the shape of forfeiture of charter, on the one hand, and on the other, in the civil and criminal liability of boards of directors and of managers. During the first year of a bank's existence, the members of the board of administration were forbidden to become debtors of their bank, either directly or through companies in which they were interested. After that time, they might borrow only when another firm of well-known solvency was associated in the debt or when adequate collateral security was furnished. Before they acted, however, as members of the board, they were required to give bond in the form either of a cash deposit or of shares of the bank as the by-laws might prescribe. Managers and officers might not on any account transact private business with the bank, obligate their firms thereto or become sureties.

Quite apart from these internal precautions, or better perhaps independently of them, the law established a system of thorough-going external inspection of its creatures and arranged for its exercise by the department of finance either through inspectors permanently appointed for each bank, or through special inspectors appointed for particular cases. Their duties were carefully laid down in the law.

Fairly full monthly reports of assets and liabilities, though by no means so detailed as the Canadian banks are obliged to make, were required of all institutions of credit. On the whole, the form of report selected was probably adequate to any necessary publicity.

In putting the new system of regulation into effect, it was provided that all the existing banks in the several states, if they chose to accept the terms of the law, should be considered "first" banks of issue in the states where they were domiciled, whatever their number. By becoming "first" banks, they obtained a relaxation or reduction of divers stamp duties, a reduction of notarial fees and, except for the tax on lands and buildings occupied for office purposes, an exemption from federal, state and municipal taxation.

In states or territories where no bank was domiciled at the time the law was passed, the first corporation thereafter to be organized became the "first" bank. And to these "first" banks was insured a practical monopoly until 1922, in their respective territories, save for the competition offered by branches of the two great banks of the Federal District. The law provided, that is, that to none other than the first banks should there be granted either reduction of stamp duties or exemption from taxation. It went further in fact and laid down the rule that other than "first" banks should be subject not only to all taxes imposed by general laws, but also to a special federal tax of 2 % per annum on their several paid-up capitals. The position of the favored few was reinforced by a law of 1905, which forbade the issue of additional concessions (charters) until after December 31, 1909. The law of 1908 extended this term until March 19, 1922.

Under the law of 1897, as amended now and again, and as interpreted from time to time in circulars issued by the department of finance, there were working on June 30, 1909, twenty-four banks of issue, with an authorized capital of $118,800,000 (of which all but a million odd was paid); two mortgage banks, with a capital of $10,000,000 ($8,500,000 paid up), and six banks of promotion, with $47,800,000 capital authorized and $44,800,000 paid in.

The two mortgage banks had served perhaps as well as possible the purposes for which they had been authorized. At any rate, they had outstanding on June 30, 1909, the tidy sum of thirty-seven millions of mortgage loans and total assets of nearly fifty-two millions.

So far as it dealt with banks of promotion—credit or finance banks—institutions for the encouragement of agricultural, mining and industrial enterprises, the law seems to have imposed restrictions so severe as to hinder seriously and almost to defeat its objects. Chief of these banks was the *Banco Central Mexicano*, with $30,000,000 paid-up stock, a venture started in the Federal District, largely with the aid of foreign funds, as a bank of rediscount for the state banks and as an agency of redemption for their notes, but only as presented by other banks. With the growth of function of this institution, it has become a bank of banks, a clearing agent, a representative of provincial finance at the capital, and the organ through which mutual support is extended jointly to their several colleagues by the banks of issue in the states. As it is now and has been since 1902, each such state bank holds shares of the *Banco Central* equal to 10 % at least of the holder's capital. It carries with the *Banco Central* an account at differential interest, with the right to a credit equal to its share in the Central's capital. And directly it considers itself threatened, it may call on the *Banco Central* for the use of a fund—equal to 50 % of the capital of the bank in trouble—which is contributed by the other banks in amounts not to exceed 2 % of their several capitals. The money thus obtained is used to redeem the notes of the threatened bank, but at a charge to the beneficiary of 12 % and the costs of the operation. What part of the stock of the *Banco Central* the state banks did not furnish has been taken by foreign syndicates, without, however, their gaining thereby the right to interfere in the Mexican management of the bank. The assets of this corporation amounted on June 30, 1909, to $89,011,861, of which discounts stood for $13,649,884, loans on collateral for $22,476,887, creditor accounts current (loans) for $11,279,234, and accounts in trust (for the most part funds in transfer or awaiting collection) for $14,398,570. In 1908 its cash turnover was more than two and a half billions.

Additions to the number of banks of issue proper began under the law of 1897 soon after Congress passed it. Over the whole period—say roughly from January 1897 to June 1909—there has been an increase in the paid-up capital of banks of

issue from $23,010,000 to $111,780,700; in their coin and bullion from $42,573,025 to $84,352,541. Other items of the balance sheet compared as of slightly different dates show:

	December 31, 1898	June 30, 1909
Stocks and bonds	694,436	41,152,212
Discounts	56,588,275	87,058,205
Loans on collateral	22,440,691	53,219,342
Mortgage loans	418,268	10,432,603
Various credits	36,380,843	446,772,325
Total assets	170,650,776	736,191,398
Capital paid up	29,295,000	117,780,700
Reserve fund	3,757,864	32,584,425
Special guaranty fund	3,212,379	18,723,668
Deposits at sight or at not more than 3 days	1,143,623	72,126,285
Deposits at more than 3 days	2,199,886	56,125,969
Notes in circulation	54,375,769	92,221,477
Various debits	61,961,253	343,609,572
Total liabilities	170,650,776	736,191,398

The figures of the right-hand column are some distance below the high mark for the items of discounts, loans and various credits, in which, of course, the creditor accounts current appear. Reserve funds and notes in circulation reached their high point in June, 1907, prior to the panic or contraction from which Mexico suffered that year in common with the United States. It is not without significance that the reduction in reserve funds alone amounts to nearly $12,000,000. In an abridgment so brief as the present it is impossible even superficially to follow Mr. Conant's scholarly and luminous account of the economic sequences of the industrial progress of Mexico during the last fifteen years, of the influx of foreign capital, the effect of the fall and the subsequent rise in the value of one of the country's chief products—silver bullion, the manner in which Mexican currency was shifted to a gold standard, the methods, purpose and influence of the supervision exercised by the government over banks of all sorts, and the conduct and experience of the banks in the crisis and liquidation of 1907. But attention ought to be called to certain outstanding facts.

One is, that in spite of increased competition in the function

of issue, the great central bank, with its place of vantage as financial agent of the government, has more than held its own. The paid-up capital of the National Bank of Mexico on June 30, 1909, was more than \$31,500,000, out of a total of \$117,780,700; its reserve fund \$16,000,000 out of \$32,584,425; its circulation \$40,214,874 out of \$92,221,477; and its total assets \$300,455,221 out of \$736,191,391 for the whole system. Next was its still older colleague in the Federal District, the Bank of London and Mexico, with \$32,250,000 in capital and reserve, \$14,175,096 of circulation and total assets of \$180,143,356. Two such powerful banks as these must alone be mighty factors for conservatism and soundness in a system containing no real rivals. It ought to be remarked, too, that the small number of banks, and the extraordinarily wide powers of visitation—more the powers of censors than of mere inspectors—conferred upon the officers of the ministry of finance were well calculated to check banking indiscretions, errors and excesses against which the safeguards of the statutes alone might not have sufficed.

So far as the public is concerned, the banks appear to have supplied a service which in large measure, at all events, has been satisfactory. A considerable reduction of the rate of interest has been brought about, and with the increase of banking offices, a wider and better distribution of credit. In exercising their rights of issue the banks have furnished paper currency in quantities quite adequate to a population long used to hard money and inclined to prefer it. The ultimate security of this paper has been protected by the preferred lien given its holders against the assets of the issuers; freedom from depreciation by the immediate convertibility practically assured by the reserve requirements, by redemption at the head offices of the state banks and by the note redemption exercised on their behalf in the Federal District by the *Banco Central*.

The demand for long-term credit in the expansion which preceded the troubles of 1907 was so powerful and insistent that banks of issue were tempted to enter the field which the banks of promotion were intended to work. More than one of the banks of issue yielded to the temptation; indeed, the pressure was more or less effective upon most of them. Some part of

their own funds and the funds entrusted to them became tied up and unavailable. Certain risks that they assumed, notably loans upon the bonds and stocks of irrigation and agricultural development ventures, could not be turned promptly into cash. The federal government stepped in and assumed authority in the act of June 17, 1908, to invest a sum of not more than $25,000,000 in works for the utilization of water for agriculture and stock-raising, either by executing them directly or through assistance to private enterprises. At this time, further, the executive was authorized to guarantee both principal and interest of bonds issued by specially chartered institutions lending for long terms at moderate interest to agricultural, cattle-raising, combustible mineral and metallurgical enterprises. Four of the largest banks furnished a third of the funds toward a new mortgage-loan company capitalized at $10,000,000 and authorized to issue bonds as a first lien against its assets; the government another third, and public subscription the remainder. Within less than eight weeks from the date of the concession, this new land bank floated $20,000,000 of its bonds, guaranteed in full by the republic and free of tax, upon the markets of New York and Europe. Thus long-term securities were exchanged for liquid foreign capital, the character of the assets of Mexican banks notably improved, and the banks' position vastly eased.

THE ITALIAN BANKING SYSTEM

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THIS paper will examine Canovai's report on *Italian Banks of Issue*[1] from various standpoints. First, the main facts of the history of banking in Italy as given by Canovai will be traced. Next, his argument in favor of a central bank will be formulated and its applicability to the conditions which exist in the United States will be considered. Finally, certain conclusions will be drawn from the banking experience of Italy.

The history of banking in Italy divides itself into three periods: (1) the origin of the banks of issue; (2) the association of the banks of issue; and (3) the period since the banking law of 1893.

Our account of the Italian banks need not go back any farther than the origin of the six banks which were later banded together in the association. These banks were the National Italian Bank, the National Tuscan Bank, the Tuscan Credit Bank, the Roman Bank, the Bank of Naples, and the Bank of Sicily. Most of these banks were the result of the fusion of smaller banks. We will trace briefly the history of each.

The National Italian Bank was formed in 1849 by the union of the Bank of Genoa and the Bank of Turin. Each of these banks had a charter from the governor of the Sardinian States, the first granted in 1844 and the second in 1847. The agreement to unite was approved by royal decree December 14, 1849. The life of the grant was to be thirty years. The new bank could issue notes up to three times the amount of its metallic reserves. The capital of 8,000,000 lire[2] was raised

[1] *Italian Banks of Issue*, by T. Canovai. Washington. National Monetary Commission (Senate doc. 575, 61st Cong., 2d sess.).

[2] The lira is worth about 19 cents.

in 1852 to 32,000,000 lire, and then in 1859 a new charter for the bank increased the capital to 40,000,000 lire. The new charter provided for first-class branches in Genoa, Turin, and Milan, in addition to the branches opened in other cities. In 1860, the Bank of Bologna and the Bank of Parma were combined with the National Bank. The capital of the bank was increased in 1865 to 100,000,000 lire, and the bank took over the treasury service for the state. When the Italian state annexed the Venetian provinces in 1866, the National Bank took over the Mercantile Trust Company of Venice, and in its place established a first-class branch in Venice. Thus the National Bank was the result of the fusion of five banks.

The National Tuscan Bank was formed by the consolidation, in the years from 1857 to 1860, of banks in Florence, Leghorn, Siena, Arezzo, Pisa, and Lucca. It was a bank of issue and had in 1870 a nominal capital of 30,000,000 lire, of which 21,000,000 was paid up.

The Tuscan Credit Bank for the Commerce and Industry of Italy was created in 1860 by a decree of the provisional government of Tuscany. But 5,000,000 of its 40,000,000 lire of capital was paid up. It was not a bank of issue in the ordinary sense, since it could issue only certificates of deposit.

The Roman Bank was founded in 1850 by a papal decree. Its charter ran for thirty years, and granted to it the monopoly of banking operations and the issue of bank notes in the papal states. The bank did not prosper, and after 1856 the papal government was forced to intervene to guarantee the notes in circulation. When the papal states were annexed to Italy in 1870, the bank was granted an indemnity for permitting the other banks to establish branches in Rome. The four banks thus far treated were joint-stock banks. The other two were of a different character.

The Bank of Naples was created in 1796 by the fusion of seven pawn banks. These banks had been formed for charitable purposes. The profits went to help the needs of the people of Naples, *e. g.*, to make loans to the poor without interest and to ransom Christians who had been captured by infidels. The needs of the state in the way of loans soon brought about

a condition in which there was nothing to distribute in charity. In 1817 the bank assumed the name Bank of the Two Sicilies and was divided into two sections, one to have charge of the treasury service of the state, the other to offer banking facilities to private individuals.

The Bank of Sicily was formed from two savings banks, one at Palermo and the other at Messina, which had been under the control of the Bank of Naples.

As being typical of the dealings of these banks with their respective governments, we may trace some of the experiences of the National Bank. In 1866, the government borrowed 250,000,000 lire from the bank, at the same time relieving the bank from the necessity of redeeming its notes in specie by giving them forced currency. This loan amounted to two and one-half times the capital of the bank. In 1870, the government borrowed 100,000,000 lire, and later, 122,000,000 lire. In return for these loans the bank was freed, not only from redeeming its notes on demand, but also from keeping a metallic reserve for the notes loaned to the government. These loans were partially secured by bonds on ecclesiastical property. The government paid 0.6 % interest on the loan. In the same year the government borrowed 40,000,000 lire more, this time giving treasury bonds for security. In 1871, the government borrowed 150,000,000 lire secured by 5 % *rentes*, and in 1872, 300,000,000 lire more. In each case the bank was allowed to increase its circulation by an amount equal to the amount of the loan and was not required to hold a metallic reserve against the notes. The bank seemed to be a great help to the state.

In consequence of these practises the banking situation in Italy in the crisis of 1873 was serious. The various banks had issued 800,000,000 lire of notes for the states and 700,000,000 lire on their own account. Besides these bank notes there were in circulation credit instruments of people's banks, of firms, and even of private persons. Exchange was 10 % or more above par. The bank notes were depreciated. With this situation the first period closes.

As a compromise between those who desired the state to

issue all of the notes and those who desired the banks to issue all of the notes, there was organized an association of the banks of issue, consisting of the National Italian Bank, the National Tuscan Bank, the Tuscan Credit Bank, the Roman Bank, the Bank of Naples and the Bank of Sicily. This association was formed by a law of April 30, 1874. It was to furnish the government up to 1,000,000,000 lire of notes. These notes were to have forced circulation for two years. The notes which the banks issued on their own account were to be redeemed on demand in the notes issued by the association for the government or else in specie. Of course, the banks always redeemed their notes in the notes of the association. Both the bank notes and the notes of the association depreciated. Other features of the law of 1874 which were not of much significance in the conditions then existing, but which later were of importance, are as follows: the note issue was limited to three times the paid-up capital in the case of the joint-stock banks and to three times the patrimony in the case of the banks of Naples and Sicily; a metallic reserve of one-third the amount of the notes was to be held; the monopoly of note issue was given to the banks in the association; all notes not covered by the metallic reserve were taxed 1 %; and provision was made for the increase of notes under certain conditions.

It was not until 1881 that a law was passed abolishing the forced circulation of the notes and dissolving the association. The government borrowed 644,000,000 lire, 600,000,000 lire of which was to be used to redeem the notes of the association. It was thought that 340,000,000 lire of the notes in small denominations might remain in circulation until they could be redeemed by the surplus of the budget. By 1885, the outstanding notes had been reduced to 196,000,000 lire.

The next episode has to do with the founding by the National Bank of a *Crédit Foncier*. The outcome is instructive. It emphasizes again the danger which attends the investment of bank funds in non-liquid assets. The bank had helped agricultural and building operations with liberal loans. When the notes were not paid as they became due, the bank took mortgages as securities. The *Crédit Foncier* was founded partly

to take over these accounts. It was successful in making loans, but hard times made the repayment difficult. The bank was forced to lend the *Crédit Foncier* money to meet its obligations.

While the National Bank was thus engaged, the Roman Bank was aiding a building boom in Rome. It became so deeply involved that it was, in fact, insolvent. It was unable to redeem its notes, and for political reasons it was not forced to do so. The government allowed the National Bank to issue 50,000,000 lire of extra notes to be used in subsidies for the building associations. The second period of Italian banking history ends with the Roman Bank insolvent and the other banks loaded down with non-liquid assets.

The panic of 1893 and the failure of the Roman Bank brought about a reorganization of the banks of Italy. The new Bank of Italy was a fusion of the National Italian Bank, the National Tuscan Bank, and the Tuscan Credit Bank. For political reasons the banks of Naples and Sicily were allowed to remain independent. The Roman Bank was insolvent. The main provisions of the law of August 10, 1893, will now be taken up. The capital of the Bank of Italy was to be 300,000,000 lire, of which 210,000,000 lire was to be paid up. The amount of notes that could be issued was limited. The Bank of Italy could issue 800,000,000 lire, the Bank of Naples 242,000,000, and the Bank of Sicily 55,000,000. After fourteen years these amounts were to be reduced to 630,000,000, 190,000,000, and 44,000,000 lire respectively. The idea was to limit, after the non-liquid assets had been realized upon, the notes to three times the capital. However, notes to any amount might be issued if they were secured by an equal amount of metallic money or gold bars, or if they were issued to be loaned to the state. The notes were to be redeemed in fourteen cities. The rate of discount for the three banks was to be the same and could not be changed without the permission of the government. Each bank was forced to receive the notes of the other banks. After a year the reserve required to be held against the notes was to be increased from 33 % to 40 %. Of this 40 %, 33 % was to be metallic, at least three-fourths gold. The remaining 7 % might be in bills of exchange.

Later, the 7 % might also be in bonds of foreign states or in balances with foreign bankers. The notes in excess of the metallic reserve were taxed 1 %. On the excess of the circulation above the amount provided for by law, there was a tax equal to double the discount rate. The kinds of business in which the banks could engage were enumerated. There could be discounts of short-time commercial paper and loans on collateral of various kinds, but not on real estate. The amount of interest-bearing deposits which the banks could receive was limited and also the rate of interest which could be paid on deposits. The banks were given ten years in which to liquidate those of their operations, mostly in real estate, which were not allowed by the new law. Certain remissions of fees were made to aid in the liquidating of the real-estate operations. Government inspection of the banks was provided for. The liquidation of the Roman Bank was entrusted to the new Bank of Italy. To prevent politicians from meddling in the affairs of the bank, it was provided that members of parliament could not hold any office in the banks.

After 1893, all was not plain sailing. A parliamentary investigation showed how far the banks had violated the law. There was a large deficit in the budget, stocks fell in value, runs were started on the banks by the depositors, and many credit institutions failed. In an effort to better the situation the banks were allowed to issue notes above the limit by paying a tax equal to two-thirds of the discount rate. Metallic reserves were, however, to be held against the notes. This modification came but twenty-three days after the law had gone into force. The action stopped the runs on the banks. In 1894, a law was passed authorizing an increase in the amount of state notes from 367,000,000 lire to 600,000,000. These notes had forced circulation. There were, in 1908, still in circulation 436,000,000 lire of these notes. Examinations disclosed 638,000,000 lire of operations not in liquid form or not allowed by the new law. The liquidation of these was an operation which required much time, and consequently in 1895 the time for that operation was extended from ten to fifteen years. The loss was covered by levying assessments on the stockholders, by writing off part of the capital, and by using profits.

In 1895, the Bank of Italy assumed the treasury service for the government, taking charge of all receipts and disbursements. The bank deposited certain government obligations as a guarantee, and the government agreed to keep with the bank a cash balance of at least 30,000,000 lire. The law of 1898 strengthened the requirements for the security of the notes. The metallic reserve was to be held at a certain amount even if the decrease in the circulation made this amount a reserve of more than 40 %. The note holders were given a lien on most of the assets of the bank not specifically pledged for some other purpose. The tax on the circulation was to be reduced gradually from 1 % to $\frac{1}{10}$ of 1 %. When the low rate was reached, the state was to share in the profits of the bank, getting one-third of the profit between 5 % and 6 % on the capital and one-half of the profit above 6 %. The year 1898 was a time of great speculation and activity in industry. With 1900 began a period of prosperity for the country and improved financial condition for the government. Slight changes were made in the banking situation by the law of 1907. The note circulation for the bank of Italy was increased to 660,000,000 lire, for the Bank of Naples, to 200,000,000 lire, and for the Bank of Sicily, to 48,000,000 lire. The requirement for the irreducible metallic reserve for the notes was changed as follows: for the Bank of Italy from 300,000,000 to 400,000,000 lire, for the Bank of Naples from 90,500,000 to 120,000,000, and for the Bank of Sicily from 21,000,000 to 28,000,000. Changes were also made in the taxes on the excess circulation. Thus the Bank of Italy may now issue an excess of 50,000,000 lire by paying a tax equal to one-third of the discount rate; an excess of from 50,000,000 to 100,000,000 lire is taxed two-thirds of the discount rate; from 100,000,000 to 150,000,000 the tax equals the discount rate; any excess above that is taxed 7.5 %. By 1908 the liquidation of the assets was complete and the banks were in a sound condition. With this brief sketch we must leave the history of banking in Italy and turn to the consideration of the argument for a central bank.

Canovai's entire essay is an argument for what he calls unity

of issue as against plurality of issue. He lets no opportunity pass to point out how disaster followed from the plurality of banks or how a strong central bank might have saved the day. We shall take up his statement of the advantages of a central bank, the disadvantages of plurality of banks, and some of the difficulties encountered in going to a unified system from the system of plurality of banks. Some notice will be taken of the validity of these arguments when applied to the United States.

A central bank, according to Canovai, can (1) regulate the circulation and credit, (2) aid in crises, (3) support the state credit and take charge of the treasury service. (1) Canovai considers the condition of Italy after the passing of the law of 1893 as illustrating unity of issue. True, there are three banks of issue, but they issue under the same conditions. He bewails the fact that no central bank was started when the kingdom began. In the period before 1893, bank notes were issued to excess and these notes were used as the basis of unwise extensions of credit. The six banks had no interest except their own. There was no central authority to regulate the issues as there has been since they have unity of issue. (2) To a very great extent a panic is a matter of fear. A strong central bank can, by prompt and decisive action, allay this fear and stop the panic. The fearful effects of the panic of 1893 when there was a plurality of banks are contrasted with the situation in the last panic. In 1907 the three banks refused to issue more notes for speculative purposes and by their quick action in aiding credit institutions helped to allay the fear. (3) The central bank can take charge of the treasury service for the state. The Bank of Italy looks after the receipts and disbursements of the government without any pay, other than the use of a certain balance which the government is required to keep with it at all times. The bank can be of much use in managing the loans when the state needs to borrow.

The part of the argument which deals with the disadvantages of plurality of banks is most emphatically put. Most of the evils in the banking experience of Italy are attributed to the plurality of banks. The banks violated the law in regard to the amount of issues in their rivalry with one another. There was

competition also in the granting of discounts. The desire for dividends led to laxity in making discounts. The notes so freely issued were often used for speculative purposes, sometimes dishonestly. With the rivalry there was no attempt to check unsound credit. The cry for more notes from those who confused the lack of capital with the lack of money was always met by issues of notes. In time of crisis each bank worked for its own interest.

Canovai's treatment of the difficulties of going from a system of plurality of issue to one of unity, is of interest. He has no patience with the idea that there is danger in giving to one bank the monopoly of issue, since it in no way gives to the bank a monopoly of credit. Custom and tradition are recognized as strong defenses for the system of plurality where it exists. By far the greatest difficulty comes from the interests of the plurality of banks. These banks do not wish to lose their right of issue and they can bring much pressure to bear upon the legislative body to prevent action toward unity.

We may now consider the validity of the arguments as applied to the United States. There are some great differences between conditions in the United States and in Italy. There is the very obvious difference in size. We know of the great differences in the natural resources and the variety and extent of the industrial development. Commercial habits are different; the use of bank notes is more general and the use of checks less common in Italy than in the United States. The problem, in Italy, had to do with six banks of issue, while in the United States there are about 7,000 national banks, and they are all banks of issue. There seems to be a chance for a mistaken argument from Italian conditions.[1] As Canovai puts the argument, we have disaster under plurality of banks, improvement under approximate unity. The statement might be put fully as well, that there was disaster under unregulated banking, with no publicity or inspection or any method of enforcing the law, and improvement when the law and its enforcement were improved. The point is, that a central bank operating under the same laws and same lack of enforcement of law would have been as efficient an agent of disaster as the six banks were.

However, there is no reason to deny that the argument as to the advantages which come to the country from having a central bank to look after the treasury service and to give unified control of the money situation in a time of panic, applies to the United States as well as to Italy. The differences which have been enumerated above may make the realization difficult but they do not touch the question of the advantages.

No matter what its bearing on the question of the central bank, the history of banking in Italy as given by Canovai presents numerous lessons.

One of the most striking of these lessons and one which Canovai points out with great clearness is, that the question of business prosperity or adversity is not merely a banking question. He points out the influence of such factors as the general state of industry, the investment by the government in railroads, the general extravagance of the government, a debit balance on foreign trade, agricultural crises, political conditions, prosperity of the countries with which the country has relations, and finally speculation. This recognition of the multiplicity of the factors involved is certainly to be commended.

The evil of legislation which takes into account sectional interests, is shown with great clearness. The temptation to pass such legislation was doubly strong in Italy where the parts of the kingdom had been so recently independent. The possibility of sectional conflicts of interests in the United States, should new legislation be attempted, is a factor which may be of importance.

One of the most important lessons to be drawn from Italy's experience is the necessity for publicity of bank accounts. The parliament in legislating did not know the condition of the banks. New privileges were granted to banks which were really insolvent. The limit put on circulation by the act of 1874 seems to have been disregarded with impunity; in fact, the act of 1890 legalized the amounts of notes over the limit which the banks had been keeping in circulation.

That land should not be used as security for loans or notes by a bank of issue, is a lesson which Italy learned by sad experience. The use of land, even indirectly through *Crédit*

Foncier institutions was found to be dangerous. The loans whether on agricultural land or on city property proved to be extremely hard to liquidate.

Very often the Italian government used the banks as a means for borrowing money. Frequently the transaction was in this form: the bank gave the state notes; the state released the bank from the necessity of keeping reserves for these notes, proclaiming them legal tender and so giving them forced circulation. It was one more example of the attempt to use government debts as money. In condemning this borrowing, it is not to be thought that it is not legitimate for the government to borrow from a central bank. Indeed it is one of the most important functions of such a bank to tide the government over temporary deficits, or to permit the government to anticipate certain revenues. It was the form of the borrowing which was objectionable in much of the Italian experience.

The experience of the Bank of Italy in 1900 suggests a method for preventing a central bank from being used in speculation. The Bank of Italy, at that time, was not allowed to discount bills not of commercial origin, although they were secured by collateral. In this way a check was put upon the speculation which was rampant at that time. It is clear from the disastrous experience of the Italian banks with the building speculation in Rome, that no central bank should make loans which depend upon the success of some speculative venture for repayment.

THE BANKING SYSTEMS OF THE NETHERLANDS, RUSSIA AND JAPAN[1]

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I

THE BANK OF THE NETHERLANDS[2]

THE Bank of the Netherlands was chartered in 1814 as a joint-stock company. The original charter, which was to run twenty-five years, has been renewed from time to time. The bank was located at Amsterdam and was empowered to establish branches. As none were established at first, such foundation was legally required, and by 1907 there were 107 branches.

The original capital of 5,000,000 florins[3] was increased in 1819, 1840, 1863 and 1888 until it now stands at 20,000,000 florins. One-fifth of the capital and surplus may be invested in approved securities. In 1888, a surplus was for the first time made obligatory and fixed at 25 % of the capital, although a surplus of that amount had actually existed for many years.

The bank has enjoyed a monopoly of note issue since its foundation, although since 1863 the government has reserved the right to create other banks of issue and legalize the circulation of foreign bank notes. Until 1863, the amount of notes issued was fixed by law. In that year, however, the maximum limit of note issues was removed, and in the following year a metallic reserve of 40 % was fixed against all demand liabilities including bank notes. In 1907, there were outstanding 266,000,000 florins in bank notes, the ten-florin note being

[1] Based on *Banking in Russia, Austro-Hungary, Holland and Japan.* Washington, Government Printing Office. Publications of the National Monetary Commission (Senate doc. 586, 61st Cong., 2d sess.)

[2] *The Bank of the Netherlands.* By R. van der Borght, *op. cit.*

[3] A florin is approximately 40 cents.

the smallest denomination allowed. The notes are redeemable on demand in gold or silver, are untaxed, and are full legal tender, save in the case of payments made by the bank itself.

The bank is privately owned, but the government exercises supervisory power by means of a special appointee, and also appoints the president and secretary of the directorate. The shareholders elect five directors, who, with the president and secretary, have the active management of the bank.

Until 1863 the bank rendered small service to the state. In that year it was made liable to take over the entire service of the royal treasury, but since 1871 it has redeemed this obligation by an annual payment of 100,000 florins. By the act of 1903, the bank is required to make advances to the government without interest, up to the amount of 15,000,000 florins, whenever the finance minister thinks it necessary to strengthen the royal treasury. It also acts as agent for the postal savings system, and has the management of the central treasury at Amsterdam.

In 1888 for the first time the government was given a direct share in the profits of the bank. At the renewal of the charter in 1903, it was provided that of the net earnings a 3½ % dividend should be paid the shareholders; 10 % of the remainder should go to the surplus, provided the latter did not, at the time, equal 25 % of the capital; of what was left, the state should receive two-thirds and the shareholders one-third. The state's share of the profits in 1906–1907 was 3,397,349 florins.

The bank secures the bulk of imported gold since it pays 1648 florins per kilogram for pure gold, whereas the amount paid by the mint in coin is only 1647.87 florins.

II

ORGANIZATION OF BANKING IN RUSSIA [1]

The Imperial Bank of Russia was chartered in 1860, and was reconstituted in 1894 so as to give greater assistance to the development of industry. Its capital was originally 15,000,000 rubles,[2] with a surplus of 1,000,000 rubles. Additions from the

[1] *Organization of Banking in Russia.* By Professors Idelson and Lexis, *op. cit.*

[2] A ruble is approximately 52 cents.

profits raised the capital to 25,000,000 rubles and the surplus to 3,000,000 rubles. In 1894, provision was made for increasing the capital to 50,000,000 rubles and the surplus to 5,000,000 rubles, by setting aside annually a portion of the profits. The head offices of the bank are in St. Petersburg, and it had 107 branches in 1895.[1]

Previous to the establishment of the bank the government had greatly increased the volume of government notes, with the result that they had fallen below par.[2] At the organization of the bank in 1860, a practical separation of the banking and issue departments was effected. Since 1897 the issue department must hold a gold reserve of 50 % against the first 600,000 rubles of notes and 100 % against all notes issued in excess of 600,000 rubles. This practically authorizes the issue of 300,000 rubles of uncovered notes. No other bank may issue notes. In 1897 there were in circulation 1,068,780,000 rubles in notes. They are legal tender and redeemable on demand in gold.

The bank is purely a state institution under the direct control of the minister of finance. A council, a governor, and two deputy governors compose the central administration, while each branch has a committee to determine the amount of credit to be granted and the value of collateral. Profits go to the imperial treasury.

Perhaps the most striking service rendered to the state has been in connection with the resumption of specie payments through the energy of finance minister Witte. Since the latter part of the eighteenth century, Russia's paper money, issued by the government, had been below par. Steps were taken by Witte to increase the gold reserve. Beginning in 1897 the notes were made redeemable in gold, and assurance that gold redemption would be maintained was given by the provision of the reserve requirement stated above. Silver was put on a subsidiary basis by limiting its legal-tender quality, and by coining it only on government account. Silver was not to be

[1] Conant, *Modern Banks of Issue*, 3d edition, p. 244.

[2] In 1817, 100 silver rubles were worth 418 paper rubles. Levy, quoted in Conant, *ibid*, p. 245.

counted as any part of the reserve against circulation. All notes not supported by the gold reserve have been withdrawn and Russia stands squarely on the gold basis.

In addition to the ordinary business of discount and deposit, the bank makes industrial loans based on mortgages on real estate or industrial plants, and on any other collateral which is deemed sufficient by the minister of finance. The specific purpose to which the loan will be devoted must be indicated by the borrower. Except in special cases, implements and machinery serving as security for a loan must be of Russian manufacture. The maximum credit extended to any individual industrial undertaking is 500,000 rubles; to owners of small workshops, 600 rubles. The amount of the loan varies from 50% to 75% of the value of the mortgaged property, while the time of the loan varies from six months to three years. Loans are also granted on manufactured products, bills of lading, etc., the time varying from three to fifteen months and the amount from 60% to 80% of the value of the security. Accounts current may also be opened on the deposit of securities, the depositor being allowed to draw up to a stated amount, paying interest only on the amount so withdrawn. Private individuals, railways, governmental bodies, associations of workingmen, and credit institutions may act as intermediaries through which the bank extends credit, the intermediaries assuming liability for the sums advanced. In the extent and terms of credit granted to agriculturists and manufacturers, the bank is unique among state institutions. Loans are also made for the promotion of new enterprises "by virtue of special provisions." These loans had caused down to 1906 losses of 25,600,000 rubles. Since bank notes have been made redeemable in gold, the bank has been much more moderate in extending "loans by virtue of special provisions" and "industrial loans" as well.

Municipal banks have been in existence since 1789, but not until 1862 did their number exceed ten. Between 1862 and 1883, 215 were established. Since the latter date only 39 have been established, owing to the more rigorous supervision established at that time. The capital must be provided by the municipal assembly, and must not be less than 10,000 rubles. The

assembly elects the directors, none of whom may hold any other municipal office, or serve in any other credit institution. Statements are made annually to the assembly. A municipal committee examines the cash account every month. The government receives reports at stated intervals and may call for an examination at any time. The cash reserve, which includes credit balances with the Imperial Bank, must be 10 % of the total liabilities. There are also mutual credit associations which furnish credit to their members up to ten times the amount of cash paid in by each.

Private banks were not allowed until 1860. There are now 36 joint-stock banks operating under the law of 1883. The original capital may not exceed 5,000,000 rubles; the cash reserve, including credit balances at the Imperial Bank, must equal 10 % of the total liabilities; the liabilities may not exceed five times the capital. A surplus must be created from the profits, and at least one-third of this surplus must be invested in governmentally-guaranteed securities and deposited in the Imperial Bank. Unincorporated private banks are under the direct supervision of the minister of finance, who may at any time subject them to examination and forbid them to engage in lines of business in which abuses have occurred.

III

THE BANKING SYSTEM OF JAPAN[1]

Modern banking in Japan dates from 1872, when a banking system based upon the national banking system of the United States was established. Large amounts of depreciated government paper were in circulation, hence bank notes were presented for redemption as soon as issued, thereby rendering note issue impracticable. In 1876 the government declared bank notes redeemable in government notes. Eight-tenths of the capital of the banks might be invested in government bonds; two-tenths must be held in government currency as a reserve. Notes might be issued to the extent of deposits. In 1877 the

[1] *The Banking System of Japan.* By Marquis Katsura, Baron Sakatani, S. Naruse and Dr. O. M. W. Sprague, *op. cit.*

government increased largely the issue of its own notes, which had an immediate effect on the exportation of specie. In the same year restrictions were placed on note issues by banks, and the redemption of government notes and bank notes was begun. In 1883 the right of note issue was taken from the banks and after 1899 no national bank was allowed to continue in business. They might continue, however, as private banks. By 1904 all government and national bank notes had been withdrawn.

In 1880 the Yokohama Specie Bank was established for the purpose of dealing in foreign exchange. It handles the loans and moneys of the government in its dealings with foreign countries, and is entitled to a loan of 20,000,000 yen[1] at 2 % from the Bank of Japan for the purpose of facilitating foreign trade. It also does business as an ordinary bank, while ordinary banks may also engage in foreign transactions. The bank is privately owned, but has for its governor the deputy governor of the Bank of Japan. It may not issue notes, except in Manchuria and China, where its branches may issue silver notes.

In 1882 the Bank of Japan was established on the model of the Bank of Belgium. It now has a capital of 30,000,000 yen and, alone among banks, may issue notes. The bank may issue up to 120,000,000 yen in notes based upon the security of commercial bills and national bonds, paying a tax of 1¼ % per annum except when lent at an interest rate not exceeding 1 %. Notes may be issued to any additional amount when based upon an equal specie reserve, and additional emergency notes may be issued on permission of the minister of finance based upon approved bonds or bills. On this last class of notes, a tax of not less than 5 % per year is levied, the exact rate being determined by the minister of finance. The government appoints the governor, the vice-governor and the directors, from candidates chosen by the shareholders. Government inspectors may sit in the meetings of shareholders and directors. The bank manages the treasury receipts and disbursements without remuneration, and exercises supervision

[1] The value of the yen is approximately 50 cents.

over the Yokohama Specie Bank. It serves as the center for all the banking interests of Japan, and by its regulation of the discount rate controls the import and export of specie.

Private banks are organized under the law of 1890. They are placed under strict governmental regulations, whereas up to that time private banks had been free from government supervision. Savings banks are required to invest 25 % of their deposits in interest-bearing bonds.

The Agricultural and Industrial Bank with branches in every prefecture, and the Hypothec Bank, were organized under the law of 1895, for the special purpose of aiding the organization of industrial enterprises, by making long-time loans on the security of immovable property. The Industrial Bank, organized under the law of 1900, makes long-time loans on the security of bonds, shares, and movable property. It is a joint-stock company, privately owned, with its governor and deputy-governor appointed by the government.

The Bank of Formosa, privately owned for the most part, but with its president appointed by the Japanese government, was established in 1900 for the purpose of reforming the currency system of Formosa. The government supplied 1,000,000 yen of its capital, on which no dividend is to be paid for five years. It may issue 5,000,000 yen of notes free of tax, and has a five-year loan, without interest, of 2,000,000 yen from the government.

The Hokkaido Colonial Bank was founded in 1899, with a capital of 5,000,000 yen, to colonize and develop the island. A government official attached to the bank exercises strict supervision.

GERMAN BANKS AND STOCK EXCHANGE SPECULATION [1]

CARL PARKER

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I

GERMAN STOCK EXCHANGE REGULATIONS

DIRECT governmental regulation of industry is carried much further in France and Germany than in England and the United States, the two latter countries preferring a lighter touch of the legal hand and a correspondingly wider activity of intelligent and aggressive public opinion. The regulation of the commercial exchanges is no exception to this rule. The French and German government authorities make many minute regulations which in England and the United States are made by the exchanges themselves. Government regulation is likely to produce harmful radical legislation which must be modified later, while private control is quite as likely to result in the tardy recognition of valuable reforms. It is a question of whether it is better to go too fast or too slow.

The difficulty an American finds in understanding German regulation arises from the fact that so many distinct official bodies are authorized to exercise supervision over the exchanges. First, the imperial government, consisting of the Reichstag, the Bundesrat, and the imperial chancellor, enacts the general exchange law. Under this law the state governments exercise supervision over the exchanges, notifying offices, clearing banks, clearing associations and similar institutions connected with the exchanges. This supervision may be entrusted to commercial organizations (the chambers of commerce and commercial corporations). The states are repre-

[1] Based largely on the publications of the National Monetary Commission relative to the German banking system. (Senate docs. 407, 408, 507, 508 and 574, 61st Cong., 2d sess.)

sented on the exchanges by commissioners, who control, in accordance with detailed instructions given to them by their governments, the transactions on the exchange, and enforce the laws concerning them. They are also required to report all abuses on the exchange and to suggest preventive measures.

An expert exchange committee of the Bundesrat is formed with the purpose of reporting upon matters within the jurisdiction of that body. This committee is authorized to tender its motions to the imperial chancellor and to consult with experts. It consists of not less than 30 members, elected by the Bundesrat for a period of 5 years, one-half of them upon nomination by the exchange, the other half being chosen with special relation to the needs of agriculture and industry. The Bundesrat issues regulations for the purpose of securing uniformity in the fixing of prices of merchandise and securities and determines the minimum amount of stock, as well as the minimum amount of the face value of each share necessary for the listing of the shares on the particular exchange. It also defines the duties to be discharged by the board of admission, aud makes provisions concerning the requirements for the listing of securities on the exchanges.

Under the provisions of the imperial law, the government of Prussia entrusted the right of direct supervision over the Berlin exchange to the Berlin Chamber of Commerce. That body therefore in 1908 drew up a body of regulations for the Berlin exchange, which were approved by the Prussian minister of commerce and manufacture, and became binding on the members of the exchange. By virtue of a former national act, the Prussian state in 1908 had ordained some thirty-eight provisions concerning brokers on the Berlin exchange, and by authority of a still earlier national act the Bundesrat in 1896 announced fifteen rules for the listing of securities on exchanges. Thus the broker on the Berlin stock and produce exchange must obey the regulations made for all exchanges by the federal government, then the general and particular regulations made by the Bundesrat, then the regulations of his own state government, and finally the provisions of the Berlin Chamber of Commerce.

The national act of 1908 provides that the listing of securities on each exchange shall be by an admission committee, at least one-half of whom must be persons not dealing professionally in securities on the exchange. If an application for listing is rejected by a board of admission for other than local reasons, the securities cannot be listed upon another exchange without the consent of the board which refused their listing. In case of securities open to public subscription, no official fixing of the price may be declared before the closing of the subscription, and no negotiations may be made on the exchange. Neither may the prices be quoted by the brokers or published in any other way.

The right of future dealings in securities may be granted only when the aggregate nominal value of the securities reaches a minimum of about $4,000,000 (20,000,000 marks). Future dealings in shares of a domestic industrial enterprise may be transacted on the exchange only with the consent of the company. They are binding only if both contracting parties are "merchants" who are entered in the commercial register or whose registration is not required, or if both parties are registered associations. This does not include small traders. "Merchants" are persons engaged in the banking business or in future dealings on the exchange, as well as those who hold the permanent right of admission to the exchange and those who have neither domicile nor business establishment within the country. Future contracts for farm products are valid only when made by producers or by merchants or registered associations trading in farm products.

The Berlin Chamber of Commerce provides for the administration of the exchange by a board of 36 directors, 9 of whom must be elected by the Chamber of Commerce from among its members, and 27 by the members of the exchange from among their own numbers, 15 from the stock-exchange department, and 12 from the produce-exchange department. In addition, on nomination of the board of agriculture, 5 representatives of agriculture and allied industries are elected, who participate in meetings of the board of directors dealing with matters concerning the agricultural trade. This board of exchange directors

has supervision over the exchange, subject to the regulations of the several superior powers.

The most minute restrictions upon the Berlin broker are those made by the Prussian state government. Brokers are appointed by the lord lieutenant of the province of Brandenburg and the city of Berlin, upon whose order the state commissioner at the Berlin exchange administers an oath binding the broker to discharge faithfully the duties incumbent upon him.

After being sworn in, the broker receives a certificate of appointment issued by the lord lieutenant. Each broker is required, except under special circumstances, to recommend a deputy to represent him during leave of absence, or in the event of his being hindered by illness from attending to his duties. He must attend and sit through all the exchange meetings unless granted leave of absence. He may act as business agent only for those exchange visitors who are in possession of a card entitling them to conclude transactions upon the exchange. He must enter daily in his daybook and over his signature all transactions which he has concluded for his own account, as well as the guarantee assumed by him in connection with transactions concluded through his agency.

The regulations of the clearing-house association and the clearing bank are similar to most clearing-house requirements. In order to realize the purpose of the association, each member is required, even when he has no balance of securities to deliver or receive, to present to the office an account of his transactions in securities concluded during the last month with members of the exchange. Any member who fails to submit his balance sheets at the fixed time, even when he has no securities to deliver or receive, is subject to a fine of not over 300 marks for each sheet which is missing, or has not been submitted in due time.

II

RELATION OF BANKS TO SPECULATION

German legislation made no sweeping reorganization of the exchange. Many of the old customs were used as a basis for the new laws, and most of the essential features of the former

organization were retained. Many important restrictions of old practises were made, however, and the close supervision exercised at present has greatly cut down the freedom of action of past days. Formerly, any one was admitted on payment of a small fee, to trade on the exchange for his own account or as a broker. Now the persons having this right are specified by law. As in former days, there is no limit to the number of members.

The banks are the most important members of the exchange in Germany. They pay a small annual tax, and are members by virtue of being banks. The Deutsche Bank, for instance, has 50 members on the stock exchange, the Dresdner Bank has from 20 to 30. There are no brokerage houses as in New York. Persons desiring to buy stocks or bonds go to their banker for information and purchase or sell securities through him upon such terms as may be agreed. These terms range from no margin at all, where the customer is known to be good for a certain amount, even when he desires to purchase for speculation, to 50 % or more margin in other cases, depending upon the man and the security. Usually a margin of from 20 % to 40 % is required.

In the majority of cases, there is only one quotation per day. This applies to all bonds and most mining and industrial shares. At a certain hour speculators go to the official broker, who determines the price of securities for the day, and they are settled for on the basis of that price.

The banks of Germany are the great promoters of all kinds of enterprises, and take great pride in the success of operations which they undertake. Consequently, having gained the confidence of investors to a high degree, the German banks are in an unequaled position to develop and launch big corporate enterprises. They commonly use, for the development of enterprises, the deposits of those to whom the shares are afterwards sold, and vote thousands of proxies entrusted to them by their shareholder-depositors. They have also the custody of the securities, the Dresdner Bank in 1909 having $400,000,000 worth in its vaults.

The banks thus have both the oversight of many enterprises,

keeping in many cases a representative on the board of directors, and the necessary connection with the stock exchange, so that they are exceedingly strong in the financial councils of Germany.

The general banks of Germany may be divided into three classes, the note-issuing banks, the joint-stock or credit banks and the Reichsbank. Of these the second and third are of overwhelming importance. There are 421 credit banks, of which eight large Berlin banks control a capital of some $2,000,000,000, or about 74 % of the entire capital controlled by the whole number.[1] The Reichsbank has a capital and surplus of about $58,000,000 and on account of its position, has an influence far exceeding that based on its money power alone. It is these two factors that control largely the speculative world in Germany.

The Reichsbank may make loans on collateral of the following character:

1. Gold and silver—up to their full value.

2. Government and municipal issues; shares, debentures and bonds of railroads of nearly every kind within the empire—up to ¾ of their market value.

3. Securities of foreign governments, also railroad securities in foreign countries when guaranteed by their respective governments—up to ½ of their market value.

4. Satisfactory bills receivable.

5. Bonds of mortgage companies.

6. Merchandise, when located within the empire—up to ⅔ of its market value.

The Reichsbank is forbidden by the bank act to do a *contango* business, or to issue notes on the basis of lombard loans, as the above-mentioned loans on collateral are called. Consequently the bank finds it desirable to keep down lombard loans and to build up its discounts of commercial and bank paper upon which its circulation (above the ⅓ covered by cash) is based. This it does by charging 1 % more for such loans than the ordinary discount rate, and by limiting the total amount of

[1] *Miscellaneous Articles on German Banking* (Sen. doc., 508, 61st Cong., 2d sess.), p. 91.

advances. The bank also requires that the loans granted a debtor be not disproportionate to his means, that he have a spotless reputation, and that all doubts be cleared up regarding his ownership of the pledge. Loans are made (in so far as possible) only to persons who are not likely to contemplate speculating. Loans are not granted to foreigners. In December 1907, bills discounted amounted to over $356,001,955, while lombard loans were $86,702,816.

According to the statistics for 1910, 40.6 % of the amount of these lombard loans outstanding was made to banks and bankers. Thus, while the credit banks are not restricted by law, they find it to their interest not to invest too freely in loans which are not rediscountable at the Reichsbank; inasmuch as this great central institution is depended upon to carry them through periods of crisis and tight money.

About 10 % of the total funds of these banks is invested in lombard loans, and about 50 % on an average is given over to "debit accounts." The greater part of these "debit accounts" is made up of overdrafts secured by listed securities, hypothecary obligations and sureties of third persons. The stipulated margin on the quotation of the day varies with the quality of the paper. In case of a decline of prices, the margin is maintained either by an increase of the deposit or a reduction of the credit balance. These secured debit accounts originate not merely through the extension of bank credit,—which, in turn, is secured by the deposit of securities and other valuable paper—but more often through speculative transactions connected with the issue and security brokerage business of the banks. The average margins on the market value ordinarily demanded are as follows:

German securities bearing a fixed rate of interest	10 %
Foreign securities bearing a fixed rate of interest	20
Domestic stock shares	25–33⅓
Foreign stock shares	25–50

As regards the balance, the client becomes the debtor of the bank, and these credits are booked in the balance sheet as debit accounts secured by valuable paper.

These loans merely take the place of former loans made to industrial enterprises on the strength of stock shares and bonds taken over by the banks. The banks subsequently sell them to the public by crediting them with part of the purchase price.

The lombard loans on collateral include besides advances on merchandise and securities (usually for one month), the so-called reports. The total amount of the latter, however, is not large; it has shrunk particularly since the passage of the stock-exchange law restricting trading in options. The essential feature of this class of business is that the bank buys speculative securities at the price quoted on the exchange on the date of purchase and sells them back to the client at the same price on the subsequent date of settlement. As the interest rate for "report" money as a rule is higher than on loans proper, this sort of business is very lucrative. It is also regarded as one of the most solid credit transactions, since it is done exclusively with houses of undoubted standing, and in readily negotiable securities.

The rate of interest charged by the joint-stock banks is normally more or less below the Reichsbank rate. The rate on prime bills is usually the lowest, stock-exchange loans ranging a little higher and other loans and discounts following.

From 1844 to 1909 the highest points reached by the discount rate of the Reichsbank and its predecessors have been as follows: 9 % in 1866, 8 % in 1870, 7½ % in 1857, and from November, 1907, to January, 1908; while the minimum rate has not fallen at any time below 3 %.

PROCEEDINGS OF THE MONETARY CONFERENCE HELD IN NEW YORK, NOVEMBER 11 AND 12, 1910

The thirtieth annual meeting of the Academy of Political Science, held in New York on November 11 and 12, 1910, was made the occasion of a National Monetary Conference on the work of the National Monetary Commission. It was conducted with the coöperation of the New York Chamber of Commerce and the New York Merchants' Association. The members of the National Monetary Commission were the guests of honor, attending the sessions of the conference in a body. Delegates were appointed by the governors of the following states and territories: Vermont, Rhode Island, Connecticut, New York, Pennsylvania, Delaware, Maryland, West Virginia, North Carolina, Georgia, Florida, Mississippi, Louisiana, Texas, Illinois, Wisconsin, Minnesota, Iowa, Colorado, Montana, Arizona, and New Mexico. Delegates were also appointed by twenty-four chambers of commerce and other commercial organizations. There were also present a considerable number of economists and students of monetary affairs, together with representatives of many of the most important banks in New York city and elsewhere.

Three sessions of the conference were held at Earl Hall, Columbia University. Professor E. R. A. Seligman presided at the first session; Albert Shaw, Vice-President of the Academy, at the second; and Professor Samuel McCune Lindsay at the third. The program was as follows:

FRIDAY, NOVEMBER 11

First Session: Bank Assets and Sound Currency.

American Banks in Times of Crisis under the National Banking System, by E. W. Kemmerer

Bank Notes and Lending Power, by J. Laurence Laughlin

Discussion

Second Session: Currency Reform and Business Stability.

Lessons from the Bank of England, by Joseph French Johnson

Currency Reform from the Business Man's Standpoint, by Irving T. Bush

Discussion

SATURDAY, NOVEMBER 12

Third Session: Proposed Changes in our Monetary System

Principles that must Underlie Monetary Reform in the United States, by Paul M. Warburg

The Transition from Existing Conditions to Central Banking, by Charles A. Conant

Discussion

ANNIVERSARY DINNER

The anniversary dinner of the Academy was held at the Hotel Astor on Friday evening, November 11th, Mr. A. Barton Hepburn, President, presiding. The subject for discussion was "The Need for Currency Reform." Addresses were delivered by President Nicholas Murray Butler, of Columbia University, Professor Leo Stanton Rowe, President of the American Academy of Political and Social Science, Senator Nelson W. Aldrich, Honorable A. Piatt Andrew, Jacob H. Schiff, Honorable George E. Roberts, and Professor J. Laurence Laughlin.

The conference came to an end with a reception on Saturday afternoon, November 12th, tendered to members of the Academy, official delegates and guests, by the president of the Academy, Mr. A. Barton Hepburn, and Mrs. Hepburn.

The papers read at the sessions are printed elsewhere in this volume (see pages 225, 233, 254, 376, 389, 397). The discussions and the addresses at the anniversary dinner are found in the following pages, except the address of George E. Roberts, Director of the Mint, which is printed at page 358.

DISCUSSION. FIRST SESSION, FRIDAY MORNING

The discussion at the first session was opened by Mr. George M. Reynolds, President of the Continental and Commercial National Bank of Chicago. Mr. Reynolds pointed out that rediscounting is almost impossible under our national banking system. The practise should be

stimulated, he held, under proper conditions. To a considerable extent the local banker, through his control of credit, holds in his hands the industrial destiny of his community. His ability to get credit through rediscounts should be considered a sign of strength rather than weakness. The present problem is not note issue, but flexibility of credit. For this reason Mr. Reynolds favored reform legislation. The bankers, he said, should join in a campaign of education in favor of the idea. In passing, he defended the character of American bank assets as compared with those abroad.

MR. ARTHUR REYNOLDS, President of the Des Moines National Bank: I hesitate at this time to make any suggestions at all upon the subject, because I am not in a position to speak for the American Bankers' Association. We have been awaiting the report of the National Monetary Commission, and we desire to coöperate with them in securing some adequate law. However, I might suggest one or two things which seem to me very important.

Most vital of all is the maintenance of the individuality of our banks. We must not establish any institution which will circumscribe their powers to do business or will tend to eliminate them. The great progress of our country has been due in good part to the work of our independent banks. Local banks have accumulated funds for the development of local enterprises. In other countries, through branch banks, deposits are forwarded largely to parent institutions in large cities, at times to the detriment of smaller places. I believe that our individual banks are worthy of a permanent place in the financial affairs of the country.

If a central bank is to be organized, it is desirable that the subscriptions to its capital should be open to all national banks in some proportion to their capital, or that some other plan should be provided to prevent its being controlled by any large moneyed interest. Coming as I do from the country, I am familiar with the objections that are raised to any form of central institution and to any plan of currency reform which does not contemplate giving country banks an equal privilege with city banks in the issue of credit currency. Without this privilege, I am positive that country banks will oppose legislation. We must devise a plan which is correct in theory, and which will command the confidence and support of the banking and business public. To command such support, the plan must be beneficial to all banks, large and small alike. We must be careful not to urge legislation favoring any particular class of banks.

The national-bank act should be broadened and liberalized to give the national banks of the country better facilities to compete with other kinds of banks. State institutions have grown up under state laws, which in many states treat them with great liberality. We should amend the national-bank act to enable our banks to handle all kinds of desirable business and thereby meet competition.

Discussion. Second Session, Friday Afternoon

Mr. James B. Forgan, President of the First National Bank of Chicago:

I wish to make one essential point. I came to this country after a long banking experience in Scotland and Canada, and found the discussion going on the same as at present about our national banking system and our currency. I jumped into the arena at once, advocating branch banking in this country; but I found that it was not American, and I discovered that probably I was not enough of an American at that time really to understand the situation. And I am not sure that I understand it now. I am a student and back again in the class of students; my mind is open. I am willing to give any assistance that I can in the practical detail of a new system, but I am looking to the students who have time to study, the professors of political economy and now the Monetary Commission, to evolve the proper principles of such a system. We practical bankers can be of assistance in working out details. Whenever you hear a professor of economics or any other student of this subject pass over some point and say, "Oh, that is just a matter of detail," you just mark it that that is the point that he does not understand; it is there that the banker can help, because banking is one mass of detail from beginning to end; and if we bankers don't know something about detail, we don't know anything. As bankers actually engaged in the details, in settling one thing after another as it comes up, in thinking about what we are doing without looking around us much, we may go wrong in principle, we may run counter to some economic laws that will check us in our work, and we may afterwards discover that we have made some great mistakes. That is where the students of political economy after a study of the general effects of our individual actions may come in to put us right.

I think I have indicated the attitude of the American Bankers' Association, that they want to be helpful. Let the theorists, those who are not actively doing work but who can study from past history and from present conditions the effect of what we are doing, lay down principles for us, and then let us help them with the details.

EDWARD D. PAGE, of Faulkner, Page & Co., New York:

This problem is one of diminishing the cost of production. One of my classmates showed Andrew Carnegie that he could produce three times the amount of pig iron formerly produced, at a cost of less than half the previous one. The one step that he took eventually diminished the whole cost of producing pig iron throughout the United States, and enabled Carnegie so to outdistance his competitors that he was able to capture a very large proportion of the trade of the country. When J. P. Morgan consolidated the large steel concerns he took another step in diminishing the cost of production and put our steel industry on a basis where it could compete with the world.

One need of the industries of this country is equal financial facilities for competing with the rest of the world. One of our present disabilities is the great cost which American manufacturers and merchants are under because of great fluctuations in the rates of interest due to undue expansion of credit at one time of the year, and undue contraction at another.

The next point is the scattering of the enormous reserves carried by our banks, so that they do not produce the psychological effect that they would produce if brought together into one pool.

The next is the friction which is involved in the bad handling of both domestic and foreign exchange. In other words, there is a necessity for our developing methods of obtaining moderate and fairly stable rates of interest, and moderate and fairly stable rates of exchange. Otherwise we cannot compete on an equal footing with our foreign competitors. I have often seen the time when the difference in the rate of exchange alone would throw an order for cotton goods from our southern cotton mills to Manchester. We are today at times in dealing with South American countries obliged to do our entire business for the year within a month, that being the only time when the rate of exchange will permit us to sell goods so that they can be retailed in those foreign countries at prices at which they are able to buy. During the rest of the year it is absolutely impossible to do business because of the exchange rates which fluctuate from thirty to forty per cent. Of course that is a great deal worse than the rates of exchange that we are compelled to consider in our dealings with Europe.

Approaching this subject as I did with certain prejudices against centralization and in favor of individual action and initiative, I have come to believe that the currency problem of the nation is not a matter that can be trammeled by such prepossessions, and I have been gradually converted to the belief that a central bank can perform an

important and necessary function in lowering the cost of production, just as was done in the illustration which I quoted. In the first place, it could concentrate reserves; in the second place, handle the exchanges; and in the third place, control the flow of gold to and from this country by reason of its power over foreign exchange, investing in foreign exchange at certain times and selling its own exchange at other times. I am therefore heartily in sympathy with the efforts being made by the Merchants' Association to popularize the thought that such a bank, if free from political control and free from control by selfish interests, could perform these functions in a way to help along the industries of the country.

ALEX. DELMAR, New York:

After listening to the eloquent address of Professor Laughlin of Chicago University, I have become a complete convert to his views. He contends that the government of the United States should have no concern with money; that the "national" banks should be empowered to control entirely its issue and retirement; that their privilege to pursue the lucrative vocation of advancing money on pledges should not be hampered by usury laws or other regulation. This appears to be the mysterious "detail" which, to-day, Mr. James B. Forgan, president of the First National Bank of Chicago, intimated was quite beyond the comprehension of ordinary people. According to Professor Laughlin's political economy, even the right of the government to tax the exorbitant profits of the banks should be destroyed or curtailed; so that, to repeat the significant words of Mr. George M. Reynolds, president of the American Bankers' Association and adviser to the National Monetary Commission, the "national" bankers may "hold in their hands the destinies of the entire people". In all of these patriotic and generous sentiments the measure of my recent conversion compels me to join heartily.

I notice, also, with the zealous eyes of a newly found faith, that the full-length statue of Augustus Caesar graces this hall; for it was he who took from the Commons and the Senate of the Roman republic the power to issue money, so that the stamp of *Senatus consultum* no longer meant "with the approval of the people and their representatives," but only with the approval of the deified emperor who had usurped their power.

So much for my present converted views. Now for my former and mistaken ones; the beliefs which appear in my works on money and which I ventured to entertain before I listened to the persuasive arguments of Professor Laughlin. These ancient beliefs I now renounce

with contrition. I surrender them to the future writers on money. I shed with them the regretful tear of a controverted penitent, a victim to Professor Laughlin's seductive political economy.

I used to believe—I am almost afraid to confess it, for it is becoming heretical—I formerly believed, that money was an institute of law, designed to measure value and facilitate exchange, that the control of its symbols, such as coins and notes, was of necessity a royal or state prerogative, as laid down in the digest of the Roman legal decisions; in the forensic essays of Budelius and Grimaudet; as decided in 29 Edward I and 7 Edward VI, also in the great Mixt Monies case which was adjudicated in 2 James I; and as is still retained in the effete constitution of the United States of America. In these ancient archæological charters of a time when there was a scarcity of political economists and "national" banks, money issue was held a part of the regalia, which no sovereign state could surrender without loss of autonomy. You will also find these misplaced principles of government laid down in James Neckar, who was the finance minister of Louis XVI; in Henry Thornton, a distinguished member of the British Parliament, whose treatise on the subject is one of our classics; in J. R. McCulloch (not our late Secretary McCulloch); in John Stuart Mill, with whom I h d the honor to discuss this very subject; and in the writings of other jurisconsults. I used to share these antiquated views; but now I renounce and abandon them to their wretched and deserved fate. I once ventured to believe that money being a measure of value, and susceptible, like other measures, of being limited by law, it could and should be and was employed to measure the value of commodities, for example, wheat. I believed that it was money that measured the value of wheat, just as the bushel measured its bulk; but now, following Professor Laughlin, I believe that value measures money, that wheat measures the bushel, that the unlimited measures and should measure the limited; and that, following President George M. Reynolds, the "national" banks' asset currency should measure the "destinies of the American people." Yea, the joy of conversion is sweet, and none can share or imagine its delights until after he has listened to a few modern, up-to-date, politico-economical discourses on the advantages of "national" bank supremacy.

Maurice L. Muhlemann, New York city:

I want to put in a few words in defense of the emergency currency law, which Professor Laughlin this morning left in a "frazzled" state. While I regard the Aldrich-Vreeland law as a mere temporary expedient, or stepping-stone in the direction of the central-bank plan, which

I have advocated for years, I want to put upon record my disagreement with some of the important conclusions contained in Professor Laughlin's admirable paper.

As he pointed out, when monetary troubles are upon us, there are two classes of people to be considered: those who must have actual cash for their daily business (as for payrolls), and all others, who do not require actual cash, but must have credit.

It does not matter what kind of cash is supplied to those who need it; silver dollars are as good for their needs as legal tenders, and bank notes are as serviceable as gold coin. The Aldrich-Vreeland law in making provision for the issue of additional bank notes supplies the need. Banks may by such issues conserve their reserve cash and thus be in better position to meet the demands of those who need credits.

If there is a call on the city banks for cash to move the crops, they need not remit reserve money, but can send the bank notes which under the law they can obtain upon the deposit of their securities and commercial paper. Such notes are as satisfactory for the purpose as would be reserve money, and the city banks save their reserve money.

Professor Laughlin praised the system of clearing-house loan certificates. The emergency-currency law is merely an extension thereof; the loan certificates are issued on a bank's negotiable instruments to furnish means for those whose needs do not call for cash; the law provides that the same class of assets may be used to furnish cash for the needs of the others. It is obvious that in times of apprehension, the latter provision is equally important to avert a panic.

Furthermore, these notes are also available in a measure to provide for those who do not need cash; bank notes serve as reserve money for state banks and trust companies, whose aggregate deposits and resources to-day are nearly as large, if not quite, as those of the national banks. For this vast amount of deposits the emergency notes, as well as other bank notes may be used as reserves, thus further strengthening the general status of the banks.

Professor Laughlin appears to have overlooked these features; and, whatever else may properly be said in criticism of the Aldrich-Vreeland law, I feel that it is only fair that these facts appear in the record.

Wallace P. Groom, Brooklyn:

European financial methods cannot wisely be accepted as a pattern for us. The privately-owned banks of England and France and other kindred institutions of Europe operate (at home) chiefly with and for people of the creditor class. The United States is most unfortunately a debtor nation. During the twenty years from 1890 to 1909 our ex-

ports exceeded our imports by the colossal sum of seven billion dollars; yet our indebtedness abroad continues to be enormous. What is the reason? Is it not due to excessive interest charges on our foreign debts and the oft-repeated, though indirect, renewals thereof? European interest rates as compared with ours are moderate, and our excessive interest rates make it difficult to compete successfully, other things being equal, with other countries. Money with interest added according to the practise of savings banks for 100 years at six per cent will amount to seventeen and a half times as much as at three per cent. Hence the great need of wise and equitable currency adjustments by the government which will surely maintain (not by "usury laws") a just rate of interest to the great benefit of lenders as well as of borrowers. This result could be accomplished by discarding the use of merchandise as a pretended standard measure of values.

In conclusion, let me quote from the New York *Mercantile Journal* under date of July 5, 1865:

"In the interchangeability (at the option of the holder) of national paper money with government bonds bearing a fixed rate of interest, there is a subtle principle that will regulate the movements of finance and commerce as accurately as the motion of the steam engine is regulated by its governor. Such paper-money tokens would be much nearer perfect measures of value than gold and silver ever have been or ever can be. The use of gold or other merchandise as money is a barbarism unworthy of the age."

MR. WILLIAM FREDERICK DOLL, President of the American Monetary Association, New York;

Why should money not be issued by the national government on the same principle that we issue postage stamps, that is, direct to the people? Money should be issued and loaned upon real property up to twenty-five per cent of its assessed or market value, and to the municipalities upon their bonds. New assessments would be made every four years. This would free the people from the yoke of the bankers, the usurers and the trusts; it would for the first time make a democracy possible. A postage stamp is a medium of exchange which insures two cents worth of postal or government service. Media of exchange called money are manufactured in the same way as a postage stamp, by legislation. Then why should not New York city and other municipalities borrow this money direct from the federal government in place of paying several hundred and often several thousand per cent profit to bankers? If that were done money would be at the same rate of interest throughout this country, and you would not, as today, see

part of the people paying two hundred per cent interest for the use of a medium of exchange that the bankers through special legislation borrow from the federal government at a half of one per cent.

Money is very cheap to the national bankers, but it is not to the people ; and money, being a medium of exchange like a postage stamp, should be equally accessible to all the people, if we are to have a democratic country. The Aldrich-Vreeland bill, permits the lending of money to banks upon municipal bonds. Why should not New York city borrow its money direct? Surely a national banker's signature to a New York city bond does not improve the bond ; then why pay the bankers hundreds of millions of dollars for that signature?

Discussion. Third Session, Saturday Morning

C. Stuart Patterson, President of the Western Savings Fund, Philadelphia :

I have no word of criticism for that which has been said by Mr. Warburg, with his accustomed force and earnestness. Indeed, he has expressed the view which is held by all those who have most thoroughly studied this subject. The more anybody does study it, the more certainly will he come to the conclusion that there is no practicable and final solution of the problem other than the adoption, in some form or other, of a central agency which will bring together in one reservoir that great reserve upon which depends the stability of our financial institutions. It seems to me that Mr. Warburg has also dealt in a very practical way with the various difficulties which must be encountered in perfecting this scheme, and also in securing for it popular support.

We are practical men, and we want something done. We have been wanting something done for a long time, but it is not going to be done to-day. No man conversant with the practical details of legislation can bring himself to believe that in the short session terminating on the fourth of March next it will be in any way possible to put through any bill upon this subject, even though those who are framing the bill could be brought to an agreement, and though the requisite popular support could be obtained. Nor will any such man believe that it would be practicable to do that at the next session, with a presidential campaign impending, and with both parties fighting for advantage,—but it ought to come soon after that. In order that it may come, it is necessary not only that the ordinary work of education should go on ; it is necessary not only that there should be addresses in every part of the country, and that every effort of that sort should be made to influence public opinion ; but it is necessary also that something more definite, and more practical still, should be done.

If we want legislation there is one practical way in which we can get it,—and on this very subject I once had a little experience that I may be pardoned for referring to. After the meeting of the Indianapolis Monetary Commisson I went with Senator Edmunds and ex-Secretary Fairchild, as a special committee appointed by the commission to talk to President McKinley about the practicability of getting a positive and unmistakable declaration upon the gold standard. He sent us to Speaker Reed, who received us courteously, and said, "Gentlemen, you do not expect us to put this bill through? It is not possible to put it through." We went home and organized an aggressive and active movement. Mr. Hugh Hanna established headquarters in Indianapolis, and sent from there not circulars, but letters personally written to carefully-selected men in every congressional district in this country. When we went back to Speaker Reed, he said, "Why, there seems to be a popular demand for your bill; every member in the house has been to see me and talk with me about it, and they all say they are getting letters from their constituents." In consequence there was put upon the statute books of the United States a positive and clear declaration in regard to the gold standard.

That is just what you must do in this case; you must uphold the hands of Senator Aldrich. You have got to see that the bill which he formulates—and which will be the right bill—that the bill obtains the support of every part of this country. When that thing is done we shall have a financial system in the United States of which we shall have reason to be proud, and any man who has played any part, however slight, in connection with that great work, will have reason to congratulate himself upon having done it.

PROF. DAVIS R. DEWEY, of the Massachusetts Institute of Technology. In the past two years, since the question of the central bank has come to the front, we have made considerable progress. I was much pleased with the first paper, to say nothing of the second, in that so much emphasis was placed upon the two points of the fluidity of the reserve and the extension of credit, rather than on note issue.

It would be presumptuous for me to give any advice to the Monetary Commission, but it seems to me that the further they can keep from the question of note issue in any proposed plan the more likely they are to obtain success. The people, as a rule, are not particularly interested in banking questions other than note issue. The great questions which have involved controversy in our banking history have centered very largely around that particular function.

With regard to the reserve, the people care but little, and you can

secure, I believe, with comparative ease, what legislation you wish. As to making our credit more fluid by securing a system under which paper can be rediscounted more freely, by which a larger use of bills of exchange can be introduced—if legislation be necessary for that, I believe it can be obtained.

The literature which the commission has published, so far as I have read it, has emphasized this conclusion, that the success of foreign banking, and particularly of English banking, has been in administration rather than in law. If there is one thing that Mr. Withers brings out more than anything else in his monograph on *The English Banking System* it is the absence of restriction. The absence of law has contributed to the development and success of British banking. If we can free our banking system of some of its shackles, so that greater responsibility may be placed upon the banker and greater opportunity given him, we are likely to advance further than by making any new, rigid system.

I hope, therefore, that the commission, if it finds that it cannot secure a reasonably unanimous agreement upon a plan involving note issue, will throw that point aside, and devote its efforts to the two questions of reserve and the extension of credit through a wider use of credit instruments. With these two things alone, even if note issue were left where it is, we should make a great gain in our banking system. Other reforms must come, doubtless, because changes must be made in our bond-secured note issue with changes in the public debt, but such reforms can come later.

The people, I believe, will not be willing to leave to Mr. Warburg's central board of control, who have charge of the central reservoir, the power also to control the auxiliary reservoir, without a very definitely prescribed set of rules as to what they are going to do with it. The advantage undoubtedly would be very great, but so far as I can learn from the paper, it is proposed to leave to the central board discretionary power as to the amount of this currency to be issued by the central board, to supplement the bank-note circulation.

Nor did I observe from the scheme any very definite plan with regard to redemption. Of all the various features of our banking system that have evaded adequate discussion, the question of redemption is, it seems to me, the most important. If, as the speakers last evening thought might be possible, you are to keep this bank question, with that of bank-note circulation, out of politics, you must see that undue inflation does not occur. Every other system of banking with which comparison has been made has an effective system of redemption ; but

we have independent banks, and no definite proposal has been made whereby notes will be redeemed as they are issued. I am afraid that the speakers of last evening were a little too optimistic in thinking that you can keep the money question out of politics. It has not been out of politics very long, and if we study political history we find an inclination on the part of those who shape political issues—call them demagogues, if you will—to divert the attention of the people from other issues to this issue.

MR. LEWIS E. PIERSON, President of the Irving National Exchange Bank:

Meetings similar to the one you are holding here have in the last few years been held in practically all of the several states by associations of bankers. At these meetings there have been discussions on asset currency, branch banking, a central bank and the necessity for monetary reform.

As an evidence of the educational value of these discussions I might say that about eight years ago I attended a joint convention of the Missouri and Kansas bankers which was addressed by Mr. James K. Eckels, former comptroller of the currency. His audience was hostile in every sense of the word. This last summer the Kansas Bankers' Association, made up of the same bankers who listened to Mr. Eckels' address, and who were so hostile at that time, passed a practically unanimous resolution favoring the organization of a central bank as the best medium by which we can better the banking and currency situation in our country. Educational work among bankers is still going on, as we keenly recognize how vitally important it is to arrive at the best possible banking and currency system.

It seems to me that the work you are doing here is of great importance, and should be as widely known as possible, and the thought naturally occurs that as there are so many journals published by business men's organizations throughout the country, your proceedings might be distributed to these journals, and through them, brought to the attention of their members. When these members realize the necessity for action they will see to it that this great question is not made a partisan matter in congress, and, as soon as Senator Aldrich and the Monetary Commission formulate their plan, the influence of these business men will be behind the proposition and will aid in securing its enactment.

JOHN MARTIN, of New York:

I agree with Professor Dewey that it is quite utopian to hope that the settlement of this question will be non-political, even if partisanship

be to a great extent eliminated. The people of the United States, more than any people in Europe, have insisted upon having a voice in the settlement of almost all questions hitherto, and it is vain to hope, I think, that they will be persuaded now to leave this one entirely to experts. Therefore it is essential that the popular features of such a scheme as Mr. Warburg so ably outlined this morning shall be emphasized. His plan, which I take it demands and secures the support of most of the experts in its main outlines, fortunately also contains features which will appeal to the non-experts, the populace.

For example, his insistence that loans shall be to a large or to a much greater degree based upon commercial paper, and that loans on Wall-street stocks shall be diminished, would recommend that scheme, I think, very widely. We all know, and we may as well accept it, that there is a strong sentiment—call it prejudice, if you will—throughout the country, against what is called Wall-street influence, and if, in connection with that scheme, it can be fairly understood that loans on Wall street are to be superseded to a great extent by loans based upon commercial paper, undoubtedly the popularity of the scheme and its chance of acceptance will be greatly improved.

The people are naturally very jealous, and properly, I think, of any proposal by which governmental power of any sort or the power to make large profits on a kind of governmental privilege shall be conferred upon a private corporation. But, if it be clearly understood and accepted by the banking authorities that the central-reserve institution shall under no circumstances take more than four per cent profit, and if it is further understood that the profits which may be made will go into the public treasury for the common good, a large measure of support will be won for the scheme that would not be otherwise forthcoming.

In connection with that I would suggest that perhaps popular opposition might be still further avoided without impairing the safety of the scheme at all by eliminating the idea of the government's guaranteeing even four per cent. Is it not sufficiently certain that the four per cent would be earned to make it unnecessary to weight this scheme with a government guarantee, which would undoubtedly incur popular opposition? Would the safety be in the slightest impaired? Could not experts agree upon that without government guarantee? If so, is it necessary to invite the popular opposition which would certainly rise against a government guarantee even of that kind for the capital of the reserve institution?

Another question I would raise about Mr. Warburg's scheme, so ad-

mirable in its outline, is as to whether it would be wise to insist, as he seems disposed to do in just two or three sentences, upon the abolition of the independent treasury system and the deposit of all government funds with the central reserve institution. Would it not be sufficient to do as a speaker yesterday suggested, determine the maximum necessary for the treasury and sub-treasury to hold for the conduct of their business, and simply insist upon the deposit with the central reserve bank of the surplus beyond that maximum declared necessary for the treasury business carried on day by day? Undoubtedly the abolition of the treasury system will excite enormous opposition. If that objection can be evaded, conservatively, safely, by such enactment as the speaker of yesterday suggested, I think politically there would be a great advantage.

The last point I will raise is after all the vital one, the control of the central-reserve institution. It was arranged by Mr. Warburg's plan that the government should be represented through certain executive officers, but that the banks should be dominant, having a majority in the board of directors, or whatever name may be applied to them. There, again, it is utopian to hope that you can get such a scheme adopted without political agitation, and I want to suggest simply for consideration the possibility of securing the same end, the same stability, the same expert management, and yet not incurring the political opposition certain to be made against a proposal which would be interpreted as a plan to give the banking power of the United States still greater control, still greater privilege.

Would it not be feasible to organize some system, for example, by which certain chambers of commerce, credit institutions, boards of trade and other organizations which represent wider interests than the mere banking interest, which are more democratic, and yet which are not in danger of being ruled by mere uninformed popular clamor, shall have such voice either directly or indirectly in electing directors of this central institution, that it shall be put under more democratic control, without any danger at all of that control being political in the ordinary acceptation, without any danger that the directors so appointed would not prove the wisest expert managers for the central institution? Democracy does not mean necessarily that Mr. Taft must choose the directors, or that the directors must be chosen by popular vote. Democracy, however, which in my opinion should prevail to a great extent in the management of any such institution, does mean that wider interests shall be represented in its management than banking interests. The wider you can make the interests so represented with-

out danger to your central principle of expert management and solidity, the more likely you are to get it adopted by the country.

MR. ALFRED O. CROZIER, of Wilmington, Delaware:

I must confess a conversion to the central-banking scheme. It has been a slow process. It has been largely a process of elimination. I cannot devise any other way by which we can have the elastic currency that we need, and still have the system safe.

In an address some time ago President Taft said that the trend of mind of a majority of the Monetary Commission seemed to be towards a central bank of issue, but that such institution if established must not be controlled by Wall street or by politics. This declaration hit the nail squarely on the head and pointed out the two greatest dangers. While recognizing fully the public service rendered by the commission in a most difficult matter, in common with others I should regret any attempt to take from the federal government and put into private hands control of the issue, expansion and contraction of the public currency. Surely the people are not ready to syndicate their entire money supply.

If private parties ever obtain through a central bank or otherwise the legal authority to make money scarce or plenty at their pleasure, they will possess the power of money monopoly by which business credit, the activities of the country, the prices of securities, property and labor can be arbitrarily and suddenly destroyed, and panics, even, can be created. They could if they would terrorize and absolutely dictate to every bank in this country, forcing them all to pay a certain rate to depositors and to loan at a fixed rate to ordinary customers, but to pay a higher rate for the deposits and charge a lower interest on the loans of the trusts and big enterprises in which such private parties have a direct or indirect interest. Each bank would become a mere involuntary agent for collecting the deposits of the people and disposing of them according to the will and pleasure of irresponsible private interests emboldened and made reckless because screened from public view. They would have the benefits without the responsibility. The banks would soon have the responsibility without the benefits. Borrowers would have to pay an ever-increasing interest rate while the interest paid to depositors would be steadily reduced. This is the method always employed by private monopoly when it obtains the power. Its one object is more profits. I do not believe the country will ever approve any plan that would put into private hands this power of life and death over all the affairs, the interests, the prosperity and the happiness of the people. No scheme of private ownership or control of a central government bank can be devised that will not ultimately lead

to control by Wall street; and Wall-street control would mean politics. That was the history of the privately-owned United States bank abolished by President Jackson.

The Monetary Commission undoubtedly will cite private ownership or control of government banks in Europe. But there is no Wall street in Europe. Banking there is usually conducted by men who have no other interests or profession. Here it has become almost the rule for big banks, insurance and trust companies containing the deposit savings of the people to fall under the control of the few masterful men who so largely dominate the railroads and huge trusts, and who use such funds for schemes of exploitation and business in which they have direct or indirect interest.

It would seem clear that a central bank in private hands would complete by law a great money trust. Its powers of monopoly would tend to impose higher interest rates on the people. Its coöperation with the great central banks privately owned abroad would make it easy to increase horizontally the interest rates and value of the bond or fixed-income wealth of the entire world, thus increasing at one stroke and without reason or justice the debt burden on all humanity.

Our own government doubtless would be forced to pay a higher rate of interest on its billion dollars of bonded indebtedness because it had surrendered into irresponsible private hands the absolute power to remove all real competition for loans. The seat of the international conspiracy that forever would fix the interest rate for America and rule in its own interests the financial policy of this republic would be in Europe, far beyond the reach of our anti-trust laws.

The time for Congress to act surely has arrived. The postal-savings-bank law was a good beginning. But now we need a strong central government bank, a real government bank, to rescue the business and the banks of the country from the intolerable conditions into which they are being dragged by Wall-street interests. Such a bank perhaps should rediscount on impartial terms and under proper safeguards for the other banks. The people will insist that the institution be owned and controlled by their government rather than by private parties or corporations. Some will object to divorcing the states from participation in the control and to centralizing all the vast power in Washington. A compromise between the two extremes of private ownership and a centralized federal control would seem possible and wise. The states could be recognized and the power safely balanced so as to care for the local interests of every state and also to conserve the welfare of the country as a whole.

A board of perhaps one hundred governors serving without salary, one member appointed by the governor of each state for two years, and the other fifty-four by the President for four years, one half of them every alternate two years, would be able to give the institution a strong, honest, independent and efficient management that would inspire the confidence of the business world as well as of the people generally. The danger of Wall-street and political domination would be impossible with a board so constituted.

This board could meet quarterly and on special call, the actual running of the institution being in the hands of a small executive council composed of highly-paid and specially-trained men of the highest character, chosen by the board from its membership or otherwise and sworn to their duties as public officials, such men to be completely divorced from all other business entanglements. This plan, or some modification of it, seems to be the only way by which a safe and satisfactory elastic currency can be obtained without increasing present evils. A great institution of that character so managed would in my belief be a national blessing second only to the constitution of the United States.

Your plan has got to go before the public before you get through; so that if you are working with the idea of actually accomplishing anything, a system must be devised in such form that it will ultimately meet the approval of the majority of the actual voters of the United States. That we must look squarely in the the face. The people will not care, as Mr. Martin has said, so much about details, but they will care, they will fight over one question, and that is the question of how this institution is to be controlled. That is the whole problem, and on it we can well concentrate our discussion.

I do not agree with Mr. Warburg, that the putting of the large power which he has outlined into the hands of a private corporation with dividends limited to four per cent, will make it absolutely certain that private interests will never want to get control of that institution and use it for their own private purposes. It is not so many years ago that certain parties were willing to pay several million dollars for a few thousand dollars' worth of stock in the Equitable Life Assurance Society, when the dividend was limited by law to seven per cent. The men who paid that high price for that small amount of stock were after something besides that seven per cent. They were after the control over the hundreds of millions of dollars of loanable funds under direct control of that institution, and the financial and political power that went with that control. A privately-owned central bank will have

a dozen times more financial and political influence over all the banks of the country, over the destiny of the people of the country and through politics over the government of the country itself, than all the insurance institutions in the state of New York.

I have pointed out a plan of control, because I think that is the whole question. I do not say that this plan is right; I simply put it out as a suggestion. This institution, in its effect upon the industries and the finances of the country, is quite as important in itself as is the congress of the United States. It is more direct in its every-day influence upon the welfare of the people. Therefore, in order to be approved by the people of the United States, this institution must be either owned or controlled absolutely by the people in some form or other.

MR. EDMUND D. FISHER, Deputy Controller of the City of New York:

It seems that just now what the country needs is a definite plan, and it seems to me too that this conference is intelligent enough, and has enough bankers of experience in its membership to develop such a plan. I therefore suggest the appointment of a committee to develop a plan to submit to the Monetary Commission. Mr. Pierson hopes that legislation will be secured at the next session of congress. It will not be done unless this very body appoints a committee to draft a plan and submit it to the Monetary Commission.

On motion it was voted that the President of the Academy be authorized, at his discretion, and after consulting with the executive committee, to appoint such a committee.

PAUL M. WARBURG:

Mr. Crozier and Mr. Martin will perhaps be surprised to hear that I fully agree with them in most that they have said. Their main point, I understand, is to be assured that we shall have control as far as possible by the people and not by politics or by Wall street. In the plan I submitted to you that was the first condition that I tried to provide for. I go further than that,—if we are not sure that we shall succeed in keeping this bank free from political or from Wall-street control, it should not be created. We cannot go further than that.

As to Mr. Crozier's plan to get together the governors of all the states and the President and let them appoint one hundred men, in order to keep politics out of the bank in that way, I am afraid that I cannot agree with him. I think it is the surest way to get politics into it. I think it would be a most effective way of getting the worst kind of bank control.

As for the objection that my plan is not so democratic as it should be, further study, I think, will remove that impression. This plan allows one-fifth of the board of governors to be appointed by the stockholders. This one-fifth is to consist, not of bankers, but if possible, of merchants, manufacturers, or other elements than officers of banks. One-fifth is to be appointed by the President, or, to consist of *ex-officio* members, such as the treasurer of the United States and like officers, and the remaining three-fifths are to be appointed by groups of banks. What does that mean?

To begin with, what is this awful institution called a bank? We are not talking of that horrible place, Wall street, but of banks generally. As a rule, the most prominent business men in each locality form the boards of directors in its banks. My plan provides that the banks of one district form an organization similar to those now proposed by the Aldrich-Vreeland bill, which means that the cream of the best element of all the banks, which in turn means the cream of all the best business men, would be interested. This association would name one director of the central bank. There would be men representing the north and the south, the east and the west. These men, who do not know each other, who have no special common interests, would constitute three-fifths of the board of the bank. It is pretty difficult to think of any wrong element getting into this board.

Mr. Crozier spoke of the control of life-insurance companies, and of some one paying so much for a few thousand dollars' worth of stock, whose dividend was limited to seven per cent. I think it ought to be clear by this time that a life-insurance company is something very different from a central reserve organization, as we propose it. A life-insurance company is in the nature of an investment trust, and there goes with it the power to invest millions and millions in securities, and also in stocks, the stocks again giving control of other institutions. What advantage—I should be much obliged to be told—could accrue to the men controlling this central organ which cannot do anything but buy commercial paper? Not a single bond, not a single stock, but only short commercial paper that must be endorsed by the currency associations themselves, in case it is longer than twenty-eight days. I am a Wall-street man, but if anybody should give me the control of that board, I could not do anything with it.

A Voice: Do you not think there would be a power that might be improperly used in the control of the private corporation that had the power to issue currency and to expand and to contract the entire currency of the United States?

MR. WARBURG: That control might be dangerous if there were any personal gain or any gain whatsoever to be made, but here you have an institution which can do nothing but make four per cent for its stockholders, and if a small amount above this were earned it would go to the government. There would be no incentive to do or permit anything which was not legitimate.

You say it controls contraction or expansion. But again, how could it do that? Only by buying paper, with an entirely unselfish end, the maintenance of the correct proportion between all the obligations of the country and the correct gold reserve. You must trust some one to this limited degree. At any rate I would rather trust these men than your one hundred.

The suggestion that the chambers of commerce should appoint these men, I might say, was considered in our earlier plan; but the chambers of commerce are rather undefined bodies; they are self-perpetuating. Someone would surely claim that the chambers of commerce are Wall-street concerns. You saw quite recently when the New York Chamber of Commerce took a stand on the subway question, that it was said immediately that they represented Wall-street interests. You do not overcome distrust by inserting these bodies. These are only suggestions that we make. We know how difficult it is to approach the ideal. I only wanted to show you that we are fully in accord as to what we want to achieve and that we have given full consideration to these points.

I would like to say a word to Mr. Martin: I do not agree with him. I think that this question can be solved on non-partisan lines, but if it is drawn into politics, it will be only because each party will want to secure for itself the credit of having enacted this most beneficial legislation.

I would like to say one word to Professor Dewey about the possibility of eliminating the power of note issue. He misunderstood me if he thought I said that. I said that note issue was a side question, and ought to be treated as such. Note issue cannot be eliminated. There is no particular discretionary power, as far as this question of note issue is concerned, other than the discretionary power applied to the purchase of discounts. The central organ simply discounts paper. Whether the bank rediscounting the paper shall employ the book credit which it thus receives for the purpose of paying others in credit or in actual cash is beyond the control of the central organ.

As to the difference between the English, the French and the German system, I understood Professor Dewey to say that he thought the Eng-

lish system the better one. I disagree with him. I think that the thing we need is not the English system, but the German or the French,—to which the English will gradually come.

As to the redemption of notes, every note under the central-bank plan redeems itself. Let me take an instance. If the bank should collect all the paper it had bought, all the notes would be redeemed. It is not like a national bank, a security system where the notes go on and are redeemed by a special redemption fund.

I think a certain proportion, of course, must be kept in gold, but whether it should be 33 %, as in the German system, or 40 or 50 %, is a question which will have to be taken up later. I think 33 to 40 % would be sufficient.

One point more, as to the maximum guaranty of four per cent. I do not believe that we can do without it. Four per cent is such a beggarly return for a stock that nobody would buy it unless that return was so secured—it would be practically a government security, and for that reason would be purchased at par. The stock should stand at par, or above par, in order to give the institution the standing that it must command. Besides, the mere fact that the government guarantees the four per cent makes the government stand behind the whole thing,—and it should be so in our country, in order to establish confidence in the notes and in the whole institution. This would enable us to fight every panic which might arise, or rather to avoid it beforehand, and thus our outside banks would be secure.

SENATOR ALDRICH:

I would like to say just one word about what appears to be a misapprehension,—about the desire which is surely general to keep this question out of politics. I think that Professor Dewey and Mr. Martin misapprehended what we are trying to get at. It is not a question at all of eliminating this matter from politics, not that we propose to remove it from the arena of discussion, or that we expect to adopt any plan that does not receive popular approval. We realize that that is impossible.

What I am trying to avoid is having any suggested plan approved or disapproved on account of the advantages which some political party think they could derive from it. That is what we are after. It is to avoid having the question decided upon party lines, for the purpose of securing party advantage. We do not want to see this question decided by the supremacy today of the Republican party or the Democratic party. It is not a political, but a popular question.

I certainly have no hope or expectation or desire to see a plan

adopted that will not meet the test of public discussion, and will not in the end receive intelligent public approval in its broadest sense.

Addresses at the Anniversary Dinner

Address of Mr. A. Barton Hepburn, President of the Academy.

The bankers and business men of Europe characterize our monetary system as barbarous, and there is much to justify their extreme criticism.

Essentially the same condition existed throughout the commercial world when the panic of 1907 overtook us. There was not sufficient mobile capital in the world to do the business of the world, to supply the current demands of an intense business activity, augmented by demands for new developments and new enterprise. Under the circumstances it is not surprising that money stringency ensued. The strain was as great in England as in the United States, and even greater in Germany; and yet from October 1907 to January of the following year, notwithstanding this condition in Europe, American bankers bought abroad and imported a hundred and sixteen million seven hundred thousand dollars in gold. The Europeans not only took care of their own affairs, but they spared that gold to us, and it was brought here at a premium ranging as high as three per cent for a goodly portion of it. At the same time, American banks, especially in the money centers, were compelled to suspend payment by the expedient of resorting to clearing-house certificates and clearing-house notes. The strain was no greater here than it was in other commercial nations, and yet they, by means of a superior credit currency system, were able to meet and master conditions without currency suspension.

The experience of that year, which is fresh yet in the memory of us all, shows many of the evils of our monetary system, three of which, I think, deserve special mention; first, the utter failure of our currency to expand and contract in response to commercial needs; second, the want of centralized reserves which can be used as a potent auxiliary for good when and where needed; and third, and quite as important as all, a new credit system, a means whereby credit can be extended, not only in times of stress, but at all times, in order that interest rates may be measurably equalized throughout the country.

Congress, confronted with this condition of affairs, gave us the Aldrich-Vreeland Law, a law which has been much and severely condemned for what it does not do, and perhaps justly. It was only an emergency measure, yet it boasts of many friends, and possesses many virtues.

Congress also gave us, what is better, a currency commission, so ably represented here this evening, charged with the duty of devising and reporting to Congress a currency, credit and banking system, which would place us on a par with our business rivals; and when the names of the men were announced hope grew to confidence that relief was at hand. We felt that this most important question was in charge of able, earnest, experienced, and resolute men, who would devise a system and bring about the enactment of laws which would place it in operation. We felt that Senator Aldrich, with his long public service, his great ability, and his masterful handling of men, could not fail to secure the enactment of any measure which he might champion. The other day, when the public prints announced that he was going to retire from public service at the close of his present senatorial term, I nearly had heart failure. I still have hopes that Providence, and the Legislature which meets in Providence, may decree otherwise.

The commission went about its labors thoroughly and systematically. It made a study of monetary conditions at home and abroad, and published the results of its study. Thus there was brought within reach of the public a most valuable and complete library upon the question of currency, credit and banking.

Just what the commission has done, what it proposes to do, and what coöperation it requires upon the part of the public will, I presume, be amply dealt with by Senator Aldrich in his address this evening.

Address of NICHOLAS MURRAY BUTLER, President of Columbia University.

My task is none the less grateful because it is easily and quickly performed. It is to convey a greeting to the Academy of Political Science on the completion of thirty years of usefulness, and to add a word or two as to the significance of the gathering to-night, and of the meetings which began so auspiciously this morning, and which continue throughout to-morrow.

These academies, which have sprung up all over the world and of which this academy of ours is both an example and a type, are interesting attempts to ally or combine together the theoretical and practical interest of civilized peoples in the great problems and questions of the hour.

I suppose that the research and scholarship and learning of a great university faculty would be narrowed and cribbed and confined, if it were made solely the subject of instruction to those who came to study and to learn in formal fashion. We have seized hold of the notion

that a modern university is a great public-service institution, that it owes a duty to the public, and that one of its duties is to bring its knowledge, its learning, its scholarship, to bear upon the practical problems of the hour.

Now, the academy is an intermediary between the university and the public. There the scholars and the men of affairs, those who may perhaps be said to be amateurs in scholarship, come together to hear stated in practical and definite and succinct fashion the results of the latest reflection upon human experiences, the latest examination of human tendencies, the latest searching and study of the records of human experience in affairs of politics and of government. And so it is a real subject of felicitation that this academy like its fellows elsewhere in this country and abroad, has succeeded in building up a great interested constituency; a large company of converts, of friends, of supporters and coöperators, who are willing to follow this method, to show their interest in the task of bringing our best theory and our wisest practise into harmony.

It is a subject for very real congratulation, not only from the standpoint of the university, but from the standpoint of the public, that this undertaking was conceived, that it has existed so long, that it has achieved so much, that its future is so full of promise; and I should like to say a word on the significance of this present gathering.

Here are members of the National Monetary Commission, members of the American Bankers' Association, economists, publicists, and men of affairs in large numbers from all over the United States. Why? In order that they may confer together upon one of the most far-reaching and important questions that confronts a modern people, namely, the safety, security and simplicity of our banking and currency system.

It is rather a curious commentary upon our political life of to-day that while this question stares us in the face, while its problems cannot be dodged, but must be solved, we have just come from the election of a congress through a campaign in which, unless I have overlooked the fact, this all-important subject has been discussed by no single human being! Everything else in the heavens, above the heavens, on the earth, and beneath, and in the waters under the earth has been talked about, but a congress has been chosen which may in all probability find itself called upon to deal finally, for the present, at least, with this question, and its members are without the enlightenment which would come from a great public discussion before their constituency upon the subject of monetary reform, and a permanent monetary system.

It is a curious, not to say a sad commentary upon some of the tendencies of our contemporary politics that these very serious, and prominent, and inescapable questions are subordinated to matters which more easily lend themselves to the treatment of rhetoric, and disappear into dark night when the votes are counted.

The task of this conference is simply a public-spirited, a patriotic task, not of supporting any preconceived program, not of advancing and insisting upon any party platform, or any theory, but of conferring together in all honesty and openness of mind, and with the book of human experience open before us, to discover what we ought to ask the congress of the United States to do.

I submit that that is an important, a patriotic, a genuinely public task, and as a citizen and as a member of this academy, I offer an expression of my appreciation and thanks to those men in public life and in business to-day, who are giving long days and nights to a serious study of this great question, with a view to guiding American public opinion correctly in regard to it.

Address of DR. LEO STANTON ROWE, President of the American Academy of Political and Social Science.

I bring you this evening the greeting and the sincere congratulations of a sister organization which is attempting to promote the same high purposes for which this association was founded. Of all the standards that have been applied for the purpose of comparing progress in different nations, I know of none so effective as the measure of influence which an association such as this exerts in enlightening and organizing public opinion.

Apparently the people of the United States are gradually emancipating themselves from the belief that democracy means the indiscriminate application of the elective principle to every public office. I know of no change so significant in the thought of a nation as the clear perception of the fact that we approach true democracy in proportion as an organized and enlightened public opinion controls the policy of our government.

In the formation and organization of this public opinion the academies of political science must play an important part. It is a real tribute to the civic spirit and the patriotism of the American people that so large a number of persons in this and in other organizations are now giving their time and their energy in order that the ideas of the American people on these great questions may be final, and may be right.

I combine with the greeting of the American Academy of Political and Social Science the sincere hope that the work which you are doing,

and with which we wish to coöperate, may be even more fruitful in the future than it has been in the past, and that the Academy of Political Science and the American Academy of Political and Social Science through close coöperation and mutual helpfulness may further the great purposes for which they have been founded.

Address of Senator Aldrich

The National Monetary Commission has completed its work upon one very important phase of the examination which it believes to be necessary, preliminary to the preparation of its final report. I allude to the inquiry which has been made into the experience of other countries—an exhaustive examination into the conditions and causes which have led to the adoption of the modern monetary systems and practises in the other commercial nations of the world.

Your president has alluded briefly to the value of that examination and its results. I think the series of monographs which have been published and distributed, together with two or three others that are now in course of preparation, will certainly present to students and to the people of the country a much better history of what has been accomplished in this respect than could be otherwise obtained.

We commence today our work upon another and even more important phase of the difficult task which has been assigned to us—the work of further investigation, with a view to reporting at the earliest practicable moment some plan for the approval of Congress.

We intend—and I believe I can safely speak for the entire commission—to be unceasing in our labors, with this object in view; and if the time taken is longer than some of you think it should be, I am sure that when you consider the magnitude and complexity of the questions involved you will be lenient with us for any delay that may seem to you unnecessary.

What we now propose is to seek the counsel and invoke the calm judgment of economists, students, men of affairs, bankers and business men with reference to the work we have in hand. We shall appeal for assistance to the thoughtful men of the country, like those whom you have called together to-day. We intend to confer with the committees of the American Bankers' Association, the representatives of the merchants' associations in New York, and other representatives of the commercial and banking organizations of the country. We shall ask for their coöperation and support in presenting some wise and reasonable solution of this vast question.

We have delayed the commencement of this necessary part of our

work until the preparation and publication of the series of monographs I have referred to was completed. I had another reason for not calling the commission together within the past six months. I did not think it wise to enter upon any public discussion of this great question in the midst of a heated political campaign. If any satisfactory or successful solution of this great problem is to be found, it must be reached without reference to the advantage or disadvantage that might accrue to any political party.

It is not and cannot be properly regarded in any sense a political question. It is a business question affecting the material interests of the entire people of the United States. It is not a question which concerns economists, students, and men of affairs alone ; it affects borrowers as well as lenders. It affects financial institutions, but it also affects the great mass of the people who are interested in the stability of such institutions. The number of depositors in the various banking institutions of the United States is greater than the entire number of persons engaged in gainful occupations in the country. In other words, the people of the entire country and every section are either directly or indirectly interested in the character of our monetary and banking systems, and in the wisdom or unwisdom of our legislation affecting the same.

I am greatly impressed with the fact that the acceptance of any plan which we may agree upon by either congress or the people will depend upon the elimination of politics from every phase of its consideration. The possibility of political control of any organization we might approve would be fatal.

I realize this, and I think my associates on the commission will bear me out when I say that this is not a new thought on my part. It has not arisen in my mind since I decided to go out of political life ; it was not affected by the events of the last week ; but it comes from a knowledge that this question, if it is to be settled at all, must be settled upon scientific and business principles that will appeal to the people of this country regardless of their party affiliations or political bias.

The members of the commission as yet have no plan. They are approaching this question with an open mind ; and we have a right, I think, to ask the economists and thoughtful men throughout the country to approach it with an equally open mind.

I have been told frequently that we should encounter prejudices—prejudices of locality, prejudices as to the control by great interests of any institution or any organization which we should suggest. I realize as well as any person can that for any successful solution of this ques-

tion we must not only eliminate politics, but must eliminate the possibility of control by any section of the country, or by any interest, great or small.

This question, as I have frequently said, is essentially a national question. It must be settled upon national lines. I realize, perhaps better than anyone else, that great differences have existed and do exist probably to-day with reference to every phase of the problem. I shall not take your time to-night in stating in detail my understanding of the defects of the existing system, or my ideas about the system which should be adopted. I said a year ago that in my opinion the questions affecting the currency and note issue were of much less importance than the question of the organization or reorganization of the credit and banking systems of the country. Further study and more careful examination have confirmed me fully in that belief.

I was greatly gratified this morning to hear one of America's greatest economists, Prof. Laughlin, take the position that after all this question was not one primarily or particularly of note issues, but of reserves and of the lending power of banks. In other words, it is a question of how we can make our immense capital always available for the requirement of each and every business community in this great country. I realize fully, as I am sure that Prof. Laughlin does, that there is an important question connected with the character of our note issues and the manner in which they shall be issued; but that is subordinate to the other. I have been struck also within the last three months with the importance of this question, not only from a domestic standpoint, as a local question between banks and their customers, but as affecting our international relations, which are to us of such rapidly-growing importance.

The United States is assuming a more and more important position every day as a great power in the world of finance. Just as we are interested in the financial affairs of Berlin, Paris and London, so Berlin and Paris and London are interested in what happens in the United States. What happens here is felt throughout the world. The reverberation of the panic of 1907 encircled the globe, and every country, no matter how excellent its banking system, felt the blighting effect of our panic.

There are other phases of our international trade of interest in this connection. We export from the United States $1,500,000,000 worth of products, we import about $2,000,000,000 worth of products, making in all a foreign commerce in the neighborhood of thirty-five hundred million dollars. Eighty per cent of that vast business, at least, is done by foreign bankers, with foreign capital. Of course, some of it

passes through New York, New Orleans, and Chicago in transit, but the real business is done by foreign houses, with foreign bills of exchange. Now it is not exactly creditable to us, with our immense capital and resources, that this should be true.

The situation recently disclosed with reference to cotton bills shows what might easily happen to us, and what would have happened to us, except for the courage and intelligence of the gentlemen who had control of the negotiations. There might have been serious financial trouble. And who would have suffered? Who pays the bills for these exactions and these regulations, whatever they may be, that the foreigners put upon us, with reference to our foreign business? It is the American producer in the last analysis. Another very recent event has attracted my attention. American capitalists, it is said, have undertaken to underwrite a loan to China for $50,000,000. If we had an organization here that had the strength which the central institutions of England and France and Germany have, is it not probable we should have transactions of this character more frequently?

A few days ago the Department of Commerce and Labor published a statement showing the increase in our exports of manufactured products. It is said that trade follows the flag. But it never follows the flag if that flag is an empty symbol. It follows the flag only when we show an intelligent knowledge of the conditions of the parties with whom we seek to trade. One of the first necessities of the effort to expand our trade is to have banking facilities that will command confidence in all the markets of the world. We can extend our foreign trade by having closer commercial relations with our near neighbors—with Canada and with Mexico. We can extend it by having closer commercial relations with South America and the Central American States and the countries of the Orient.

I understand perfectly well that the question might be readily asked me—and I think I see some gentlemen in the audience who would be very likely to ask it—how are you going to get closer commercial relations with South America and the Orient, with your views upon reciprocity treaties and upon the tariff? I would say, as I have always said, that we ought to have closer relations, whether it involves the making of commercial treaties or otherwise, with the countries who are the only profitable customers we can hope to have for our products—countries that buy what we have to sell and sell what we have to buy. I have no objection whatever to commercial treaties with the South American states, with some of those great states which in the future of the world's history must occupy a position in this hemisphere that will be second only to the United States itself.

If I were controlling this administration—and, going out of politics, I think I can express this opinion safely—I would immediately open negotiations with every one of these countries looking to the extension of our trade, looking to closer commercial relations. Look at the situation in the Orient, and think of its possibilities. But these possibilities will be strengthened—I might almost say they will be created—by a proper organization of the credit system of the United States. I believe that we are all coming to the conclusion that in some way, not yet put down in black and white, not yet formulated by any man,—that in some way we must thoroughly reorganize our credit system.

This work will be a work, not of revolution but of evolution. It will not be a work of destroying existing institutions, or curtailing the spirit of independence of existing institutions, but it will be a work of construction, commencing upon the great plane of our existing organizations and building up from that; an organization that will be effective in times of panic, that can use the reserves of all in special cases for the general good whenever occasion requires, that will place the credit of this great country and of all its people where it belongs, unequaled by any in the world.

Address of Honorable A. Piatt Andrew, Assistant Secretary of the Treasury:

There is only one thought which I am anxious to emphasize tonight and it is a thought which Senator Aldrich and Mr. Scheff have both expressed. Its recognition I believe is essential for the achievement of any substantial results by the Monetary Commission, and otherwise the work of the Commission is likely to have been in vain. I mean the importance of regarding the Commission as a *National* Monetary Commission, and of treating its legislative program, whatever it ultimately may be, as a non-sectional and non-political endeavor.

Ordinarily it is true that measures involving important questions of principle have been initiated as policies of the party which was dominant at the time and have been debated and passed as such. It is also true that important policies have sometimes been advocated and opposed upon geographical rather than upon partisan grounds. This was the case with some of our earlier tariff acts. It was conspicuously the case with the silver legislation of the early nineties, including the silver-purchase act and its repeal. Most of our legislation unquestionably has been shaped, advocated, contested, and finally passed upon political or sectional grounds.

There have, however, been occasions in the history of the country,

and not a few of them, when a great public need has been recognized beyond the bounds of parties and localities, and when a proposed remedy has been discussed without regard to political or local interests. Permit me to recall to you some of the most important legislative milestones in the course of American history which have been erected through the large-minded coöperation of leaders in both parties and through the votes of senators and congressmen without regard to their affiliations. The more important financial measures of the civil war period were with few exceptions discussed and passed without division along party lines. The legal-tender act of 1862 received a majority of the votes of each party in both houses. The national-bank act of 1863 also received numerous Democratic votes along with those of Republicans. And when the war was over the great refunding act of 1866 was debated and voted without any trace of political alignment. The same is true of our railway legislation. When in the course of the eighties the tremendous growth of the railroads raised new problems of concern to the whole country, the regulation of interstate commerce was not debated as a party measure, and the act of 1887 which instituted the Interstate Commerce Commission was passed in both houses by a vote which included a large majority of the representatives of each of the two principal parties. In like manner the amendments to that act, the so-called Elkins act of 1903 and the rate bills of 1906 and 1910 were passed by votes which were practically unanimous.

We are confronted again to-day with a problem which vitally concerns all sections of the country—the problem of so reorganizing our banking system that we may avoid for the future the recurring conditions which have caused our solvent banks without reason to suspend, which have brought prosperous and well-conducted industries to a standstill, and have impaired respect for American credit and American intelligence throughout the world. The problem regarded in all its bearings, and particularly from the point of view of the future development of the country, is one of the most important with which our government has had to cope since the early days of the republic. As a constructive problem it is formidably complex and of untold ramifications. It requires the most honest, unbiased and dispassionate thought and the wisest and sanest counsel from all parts of the country. It can never be solved by the methods of campaign orators or political platform writers, and every effort must be made to prevent its being handled by them. It must be treated as the financial legislation of the great war period was treated, or as the Interstate Commerce Act of 1887 and its amendments have been treated, as a national measure paramount to considerations of party politics.

No one can yet foresee what may be the effects of the interesting events which occurred earlier in the present week [the election], but I suspect that they may conduce in some measure to the achievement of the end which I have named. For Democrats and Republicans alike will now share the opportunity and divide the responsibility of putting aside factional interests in behalf of a great constructive effort. In furthering this object, in helping to keep the Commission's work neutral, non-partisan and dispassionate, the bankers and business men, the chambers of commerce and merchants' associations, the universities and academies of political science such as are represented here tonight are in a position to contribute invaluable aid.

Address of Jacob H. Schiff

The din of battle is over, the American people have spoken, victor and vanquished accept the verdict with singular unanimity. Before long the issues which the recent campaign has so prominently brought forward will have to be taken up and their solution attempted. Currency reform, it is true, has not played any part in the campaign, but, nevertheless, it is an issue of no mean importance, and until the solution of this momentous question shall have been attained, lasting prosperity cannot be counted upon.

We may have, and doubtless shall have, successive years of profitable commercial and industrial activity; the country, for a time, will appear prosperous and contented, but the enemy lurks at the door, and when least expected, he is likely to gain admittance and again bring upon us the same disaster from which we have had, periodically, so seriously to suffer, while other nations have remained exempt. The remedy is so simple that it is almost inconceivable why we tarry so long before we learn to apply it.

The question of currency reform should not be a party question, for the weal of the entire nation and the whole people is so greatly dependent upon its early and proper solution that it should have precedence over every other question which now awaits discussion and action by Congress. So much has already been said and written upon it that it would almost appear as if the last word had been uttered and nothing new could be added.

The country is now awaiting with impatience the report of the National Monetary Commission, for it is felt that until the report of the commission and its recommendations are before the country, it can be of little advantage to bring forth further independent discussion of this momentous question.

The American people have learned a good deal in the past few years, nor can there be much doubt that it is now well understood and generally recognized that no project for reforming our monetary system can bring the relief so badly needed, unless based upon a centralizing of bank reserves, at present so widely scattered, and because of this of so little actual value in time of distress.

The emergency currency, which may be issued under the so-called Aldrich-Vreeland Act, and the sufficiency of which has not yet been tested, will, not improbably, if need arises, serve well as a temporary makeshift in helping to prevent excessive money rates under conditions which, without such an emergency provision, might lead to great stringency. An actual financial crisis the Aldrich-Vreeland measure will never suffice to prevent.

It was the Chamber of Commerce of New York, which, I believe, when the present agitation for monetary reform first started, declared unequivocally in favor of a central bank, though it sidetracked the proposition because its committee assumed that the people, as a whole, were not at that time ready to adopt so far-reaching a change in their methods, but I am quite certain that the membership of that important body is today even more nearly unanimous in the opinion that no other way exists out of our recurring financial difficulties than the establishment of a central agency, through which the requirements of our ever-changing financial conditions shall become prudently regulated and provided for.

Almost three years have passed since the last great financial panic came upon us. With a succession of good crops its effects have passed away in a comparatively short time. We have, however, by no means become immune and unless we are this time wise and prudent enough to repair our roof while the sun shines—and it will, I believe, shine for some time to come—unless we take action before long in constructing and adopting a monetary system which shall better move with the expansion and contraction of the country's trade and commerce than does our existing system, we shall, without doubt, be taught another hard lesson, which we might as well spare ourselves.

Gentlemen of the Monetary Commission, the responsibility, for the time being, is upon you. The country waits with impatience your conclusions, and be assured, when these are placed before the American people, they will be considered with care and intelligence. A right and proper solution, based upon your conclusions and recommendations, will, I believe, be found.

With the excitement which the late election has called forth, ended,

let us hope that the country will now go about its legitimate business, for which underlying conditions are, for the time being, very satisfactory indeed. The two great issues which need to be promptly, courageously and wisely dealt with to assure permanent prosperity are the tariff and the currency; of these two the currency is the more important and should have the right of way.

Address of PROFESSOR J. LAURENCE LAUGHLIN

After all that has been said it remains for me only to deliver a funeral oration over our existing monetary system.

The dynamic forces of progress have at last begun to undermine the crude and insecure fabric of our monetary institutions. Silver-tinselled and paper-roofed, the structure always presents a shattered and sorry condition after every financial storm; the wreckage of it would be comic, were it not that it uncovers to wind and weather our business prosperity and the very vitals of our national economy. We have stood naked to the world, ashamed of our condition, a by-word among nations long enough. And now that the foundations of our party organizations are also heaving and breaking up, it is high time we mended our monetary house. The like of the dime-museum of monetary curiosities we now boast of has never before been collected under one tent. They have no relation the one to the other; like Topsy they "jest growed." They represent all the hoary fallacies of greenbackism, free coinage, or any other wild theory, which for a time got enough followers in Congress to make them subjects for bargaining in the game of "scratch my back, and I'll scratch yours." It is well that we should take our monetary legislation out of politics, and treat it as we would treat the prevention of an epidemic like cholera—as a question of national health, to be handed over to experts.

Our silver currency, with 55 per cent seigniorage, masquerades at par like the thin legs of a boy in trousers twice too large for him. Industry, at each task put upon it, steps gingerly about, clad in our rigid United States notes, too tight for the wearer—with a sound of splitting garments. Our national-bank notes, given us by Chase as a relic of hard times when he was selling bonds during the Civil War, were once our pride, which we wore with undissembled vanity. Now, they recall Montaigne's apparel: "My perfumed Jerkin serveth for my nose to smell unto, but after I have worne it three or four daies together, not I, but others, have the benefit of it." Perhaps I am not mistaken in thinking that I hear the tread of the laundryman coming and that our ill-smelling motley is in imminent danger of soap and water. Heaven

send us a vigorous cleansing,—and best of all a modernizing of our antiquated wardrobe.

From 1862 to 1908 is a far cry; and common sense and knowledge of money during that legislative period were like voices dimly heard in the wilderness. In 1862, when borrowing for public needs in the form of inconvertible paper without a dollar of coin reserves in the treasury, we committed the unpardonable sin of confusing the fiscal with the monetary functions of the government; and it was not until the Act of March 14, 1900 that in a provision, quite unnoticed by the public, we made an epoch-making departure from the old error by forever separating the reserves held for the protection of our convertible paper from the free funds of the treasury directly affected by the fiscal accidents of income and outgo. It is significant, however, to note that the act of 1900 was the reluctant response to the urgent demands of business men and chambers of commerce gathered in 1898 at Indianapolis. The cowardice in the early years of 1866 and 1868, in turning from the avowed original policy of speedy contraction after the war, was followed by the error of 1878, which created the endless chain—and nearly wrecked our system in the Harrison and Cleveland administrations. The inconceivably bad politics which led congress to conciliate rather than educate the silver vote, made us suffer frightful losses in the panic of 1893. And for his action in courageously closing that chapter of monetary nightmare, Nov. 1, 1893, I am firmly convinced that President Cleveland will rise higher and higher in the esteem of posterity the more those events are viewed at a historical distance. Now, with the vigorous and intelligent action of congress itself in appointing a National Monetary Commission to go to the bottom of the whole matter, it looks as if this long period of blunders and fiascos has come to an end. And, now that Mr. Bryan has withdrawn from his long-continued occupation of electing Republican presidents by injecting monetary fallacies into politics, we may proceed in calmness and good order to treat this great and difficult problem, for the first time in our monetary history, on its merits, in a wholly non-partisan fashion. Surely, the business interests of the country have suffered enough to have bought the right to insist on an expert solution of an intricate question. It is not of a kind that can be settled by a counting of noses.

Congress has always been sensitive to having outside commissions telling it what to do. Obviously it wished to keep the opportunity for political bargaining. But, however that may be, no such difficulty can arise now, when congress has appointed its own commission; and

today the whole country is looking to this commission with an expectation that cannot be denied for a solution that will be not only right but permanent. It is needless to say that never has a heavier responsibility been laid upon a body of publicists than on this commission. Academic theories have no place here; we are expecting from the commission a masterly solution of a big practical problem, which concerns the welfare of rich and poor, banker and borrower, every receiver of a fixed income and wages, and every man who wishes that industry shall be saved from the unnecessary damages now following from every paroxysm of credit. It is not an easy task; but they have put their hand to the plough, and cannot turn back. Heaven help them to plow a furrow straight and deep!